A revision of the ground spider genus *Zelanda* Özdikmen, 2009 (Araneae: Gnaphosidae), with a description of a new genus from Australasia

Boris P. Zakharov
Natural Sciences Department,
LaGuardia Community College of the City University,
New York, USA
email: bzakharov@lagcc.cuny.edu

Vladimir I. Ovtsharenko
Natural Sciences Department,
Hostos Community College of the City University,
New York, USA
email: ovtshare@amnh.org

Abstract

Spiders of genus *Zelanda* Özdikmen, 2009 are represented by six species from New Zealand: *Z. erebus* (L. Koch, 1873), *Z. elongata* (Forster, 1979), *Z. kaituna* (Forster, 1979), *Z. obtusa* (Forster, 1979), *Z. miranda* (Forster, 1979), and *Z. titirangia* (Ovtsharenko, Fedoryak & Zakharov, 2006). These species are revised, redescribed, and illustrated. The new genus *Avstroneulanda* **gen. n.** is described. Both genera appear to represent the sister groups of the taxa that are characterized by the strongly procurved posterior eye row, the large and flattened posterior median eyes of rhomboid or irregular shape, the antero-lateral spinnerets with long pyriform gland spigots and a hood (which is unique for gnaphosoid spiders), and deeply notched trochanters. The genus *Avstroneulanda* gen. n. is diverse and common in Australia, Tasmania, and Papua New Guinea and represented by 13 new species belonging to two groups: the *grayi* group with five species: *A. grayi* **gen. n. et sp. n.** (♂♀), *A. robertsi* **gen. n. et sp. n.** (♂♀), *A. julianneae* **gen. n. et sp. n.** (♂♀), *A. johnmurphyi* **gen. n. et sp. n.** (♂♀), and *A. joyae* **gen. n. et sp. n.** (♂), and the *harveyi* group with eight species: *A. harveyi* **gen. n. et sp. n.** (♂♀), *A. raveni* **gen. n. et sp. n.** (♂♀), *A. mariya* **gen. n. et sp. n.** (♂♀), *A. serratta* **gen. n. et sp. n.** (♂), *A. yarraman* **gen. n. et sp. n.** (♀), *A. lawless* **gen. n. et sp. n.** (♀), *A. hostosi* **gen. n. et sp. n.** (♂♀), and *A. kokoda* **gen. n. et sp. n.** (♂). The species *A. hostosi* gen. n. et sp. n. and *A. kokoda* gen. n. et sp. n. are described from Papua New Guinea, while the remainder are from Australia and Tasmania.

Keywords: Australia • new species • New Zealand • Papua New Guinea • taxonomy

Introduction

Spiders of the genus *Zelanda* Özdikmen, 2009 are known only from New Zealand and are represented by six species (World Spider Catalog 2022). The first species to be described was *Drassus erebus* L. Koch, 1873 from Canterbury, New Zealand, which was transferred to the new genus *Taieria* Forster, 1979 by Forster (1979). Four additional species from New Zealand were included by Forster (1979): *T. elongata* Forster, 1979, *T. kaituna* Forster, 1979, *T. miranda* Forster, 1979, and *T. obtusa* Forster, 1979; later, the fifth species *T. titirangia* Ovtsharenko, Fedoryak & Zakharov, 2006 was described by Ovtsharenko, Fedoryak & Zakharov (2006). The genus *Taieria* was later found to be a junior homonym of the fossil gastropod genus *Taieria* Finlay & Marwick 1937, and replaced with *Zelanda* Özdikmen, 2009 by Özdikmen (2009).

Spiders of the genus *Zelanda* occur throughout New Zealand (Forster 1979: sub *Taieria* spp.), but have not been found in the Subantarctic Islands, Chatham Islands, or Australia. To complement the previous descriptions of the six species of *Zelanda*, we have provided new descriptions, illustrations and images.

While reviewing the ground spider collections from various Australian museums, we detected a series of species from Australia and Papua New Guinea that were similar to *Zelanda*, but were different in several important respects. As these 13 species could not be attributed to any previously described genus, in the present paper, a new genus *Avstroneulanda* gen. n. has been erected to accommodate them.

Spiders of the genus *Avstroneulanda* gen. n. appear to constitute a sister group to the genera *Zelanda* and *Encoptarthria* Main, 1954 and they share the same features such as the presence of a hood on the anterior lateral spinneret (ALS) (Fig. 46). The hood is a flat, transparent, cuticular extension of the dorso-distal rim of the ALS. The hood is very distinctive when viewed with a scanning electron microscope (Fig. 46) (Forster 1979), however, is barely visible under a light microscope, and is easily missed in drawings (Murphy 2007). Spiders of these genera, as a rule, possess long and narrow pyriform gland spigots on the ALS (Platnick & Baehr 2006). The ALS has a structure that can retract the pyriform gland spigots, leaving only the shaft tip exposed, and a hood protects those shafts (Rodrigues & Rheims 2020). The hood also can be folded along and hold the tip of shafts.

Material and methods

Spiders were preserved in 75% alcohol. Drawings of the spiders' body parts were made with a Nikon SMZ-U dissecting microscope. For the electron microscopic study, the specimens were examined with a Hitachi S-4700 Field Emission SEM at the American Museum of Natural History (New York, USA). The spiders were cleaned with Ultrasonic Cleaner Cole-Parmer 8848, dehydrated in acetone, dried in carbon dioxide with a Critical Point Dryer Balzers CPD 030, mounted with double-sided sticky carbon tape, and sputter-coated with Denton Vacuum Desk IV. Digital images were made with a Leica S6D microscope with a MC 120 HD camera and a Leica SMZ 18 microscope with a Nikon DS-Ri2 camera with NIS Elements software. The images were processed and combined in tabs with the Photoshop CS6 program. All measurements are in millimeters.

Collections examined: AM = Australian Museum, Sydney, Australia; ANIC = Australian National Insect Collection, Canberra, Australia; AMNH = American Museum of Natural History, New York, USA; AMNZ = Auckland Museum Entomology Collection, Auckland, New Zealand; CVIC = Central Victoria Regional Insect Collection, La Trobe University, Bendigo, Victoria, Australia; FSCA =

Florida State Collection of Arthropods, Gainesville, USA; QVMAG = Queen Victoria Museum and Art Gallery, Launceston, Tasmania, Australia; MCZ = Museum of Comparative Zoology, Harvard, USA; MONZ = Museum of New Zealand, Wellington, New Zealand; OMD = Otago Museum, Dunedin, New Zealand; OUMNH = Oxford University Museum of Natural History, Oxford, UK; QMB = Queensland Museum, Brisbane, Australia; QVMAG = Queen Victoria Museum and Art Gallery, Launceston, Australia; NMV = Museum of Victoria, Melbourne, Australia; TMAG = Tasmanian Museum and Art Gallery, Hobart, Australia; WAM = Western Australian Museum, Perth, Australia.

Abbreviations: ALE = anterior lateral eye, ALS = anterior lateral spinnerets, AME = anterior medial eye, BH = basal hematodocha, Co = conductor, Cy = cymbium, E = embolus, LP = lateral pocket of epigyne, MA = median apophysis, MH = median hematodocha, MOQ = medial ocular quadrat (field), PA = patellar apophysis, Pet = petioles, PLE = posterior lateral eye, PLS = posterior lateral spinnerets, PME = posterior medial eye, PMS = posterior medial spinnerets, RTA = retrolateral tibial apophysis, Sc = scapus, SD = sperm duct, St = subtegulum, T = tegulum.

Gnaphosidae Banks, 1892

Zelanda Özdikmen, 2009

Type species: *Drassus erebus* L. Koch, 1873, by original definition.

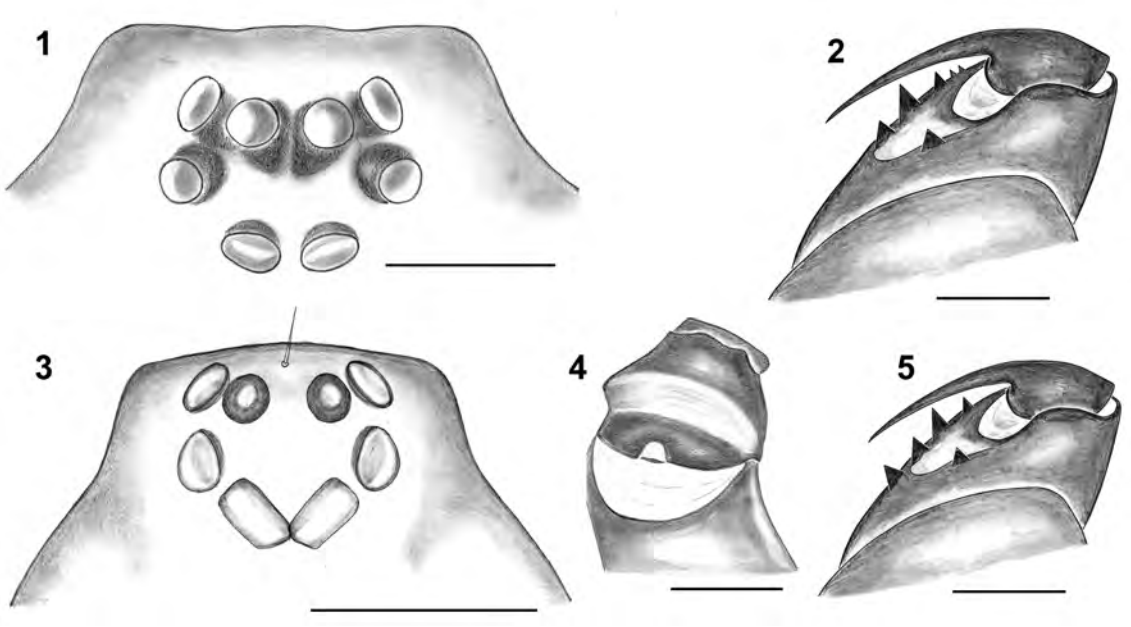
Taieria Forster, 1979: 48 (junior homonym of *Taieria* Finlay & Marwick, 1937).

Zelanda Özdikmen, 2009: 122 (replacement name for *Taieria* Forster, 1979).

Diagnosis: Males of this genus can easily be recognized by the posterior medial eyes (PME) that are oval/droplet-shaped and separated (Figs. 1, 8–10), the long and curved palpal patellar apophysis (Figs. 22–24, 58, 74, 79) or some elaboration on the patella (*Z. titirangia*) (Figs. 84–85), the short, straight RTA and the dorso-proximal spur on the palpal tibia (Figs. 58, 75, 80). The female epigyne with a distinctive scapus, the elongated epigynal atrium with two minute posterolateral pockets and bean-shaped spermathecae (Figs. 60–61, 177–178).

Description: Small to medium-sized spiders, total length 4.5–9.6. Carapace pear shaped in dorsal view, narrowed just behind at level of palps at head region, widest behind coxae II, usually red brown with dark brown setae; cephalic area convex, thoracic groove long, longitudinal. Eight eyes in two rows; from above, anterior eye row slightly procurved, posterior row strongly procurved; from front, anterior row straight, posterior row procurved; AME circular, dark; PME oval or droplet shaped, separated, flattened, and light; ALE and PLE oval, light; AME usually slightly smaller or equal to other subequal eyes, separated by roughly their radius, by less than their radius from ALE; PME separated roughly by their radius from each other; from PLE by their diameter; lateral eyes of each side separated by markedly less slightly than their diameter; MOQ usually longer than wide, somewhat wider in back than in front (Figs. 1, 8–10). Clypeal height greater than AME diameter (Fig. 10). Chelicerae, sternum, and mouthparts red-brown to white. Chelicerae with 3–5 promarginal denticles and 1 retromarginal tooth (Figs. 2, 13, 31). Labium slightly elongate, base and top slightly narrowed, posterior margin gently rounded, anterior margin medially invaginated, surface elevated (Fig. 12). Endites comparatively long, vane-like and strongly convergent with strong distal scopula; obliquely and posteromedially depressed, narrowed at palpal insertion (Figs. 12–13); serrula long, with single row of separate teeth. Sternum scutiform, much longer than wide, very slightly elevated, broad anteriorly, with long setae at margins, rebordered, not expanded anteriorly, with triangular extensions to coxae; surface tuberculate, with distinct elevations opposite, and depressions between, coxae (Fig. 12). Abdomen ranging from grey brown to yellowish brown dorsally, covered by plumose hairs; males with shiny brown anterior scutum. Anterior lateral spinnerets (ALS) (female) tubular with one article, separated by more than their diameter, with two major ampullate and seven large piriform gland spigots, male with 12 spigots (Murphy 2007) and distinctive hood dorsally (see Fig. 46; also Forster, 1979, fig. 167); posterior median spinnerets of female with 4 or 5 wide cylindrical gland spigots in two longitudinal rows and 7 or 8 small aciniform gland spigots anteriorly; posterior lateral spinnerets with two articles, those of females with two greatly widened cylindrical gland spigots and several (10–11) small aciniform gland spigots (Murphy 2007).

Leg formula: 4123. Typical leg spination pattern (only surfaces bearing spines listed): femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-3, r0-1-1; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-1-0; II v1-1-1; III p0-2-1, r0-2-2, v2-2-2; IV p1-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-2-2, p1-1-1, r1-1-1, v2-2-2; IV d0-2-2, p1-1-1, r1-2-1, v2-2-2. Legs usually yellow-brown with lighter tarsi; thick scopula on metatarsi and tarsi I, II and tarsi III, IV; tarsi with two seven-dented claws (Fig. 35) and well-developed claw tufts; trochanters notched (Figs. 16–17). Metatarsi without distinctive preening comb (Fig. 15); double row of trichobothria on tibiae and single rows on metatarsi and tarsi. Female palpal femur, patella, tibia, and tarsus with long, thin spines; female palpal tarsus with long, basally dentate claw. Ultra-structure: cuticle of cephalothorax, legs and abdomen with long and erect, mobile setae (mechanoreceptor setae) sitting in deep sockets, and densely covered by plumose setae with 8–10 appendages on each seta (Murphy 2007; Zakharov & Ovtsharenko 2015). Trichobothria: crescent plate of bothrium slightly elevated and transversely ridged, with 5 or 6 long ridges generated from lateral parts of plate and occupied all surface of plate (Forster, 1979, fig. 14). Tarsal organ on distal end of tarsus, oval in shape, with smooth longitudinally lined cuticle, aperture slightly elongated and directed



Figs. 1–5: *Zelanda erebus* (L. Koch, 1873), female (1–2, 4) and *Avstroneulanda julianneae* gen. n. et sp. n., female (3, 5). **1, 3** eyes, dorsal view; **2, 5** chelicerae, posterior view; **4** trochanter leg III, ventral view. Scale bars = 0.5 mm (1, 3–4), 0.25 mm (2, 5).

towards the end of the tarsus. Male palp with distinctive, long and curved patellar apophysis (Figs. 22–24, 58–59) or absent in *Z. titirangia* (Figs. 84–85), retrolateral tibial apophysis short and straight and sometimes with a dorsoproximal tibial spur (Figs. 58–59, 64, 75). Median apophysis small or medium-sized, hooked, embolus straight and laminar, conductor vestigial or absent (Figs. 58, 63, 68, 79, 84) (Zakharov & Ovtcharenko 2011). Female epigyne variable, prominent median scapus, elongated epigynal atrium with two distinctive, minute posterolateral pockets and bean-shaped spermathecae (Figs. 25–26, 60–61, 65–66, 177–186).

Distribution: New Zealand.

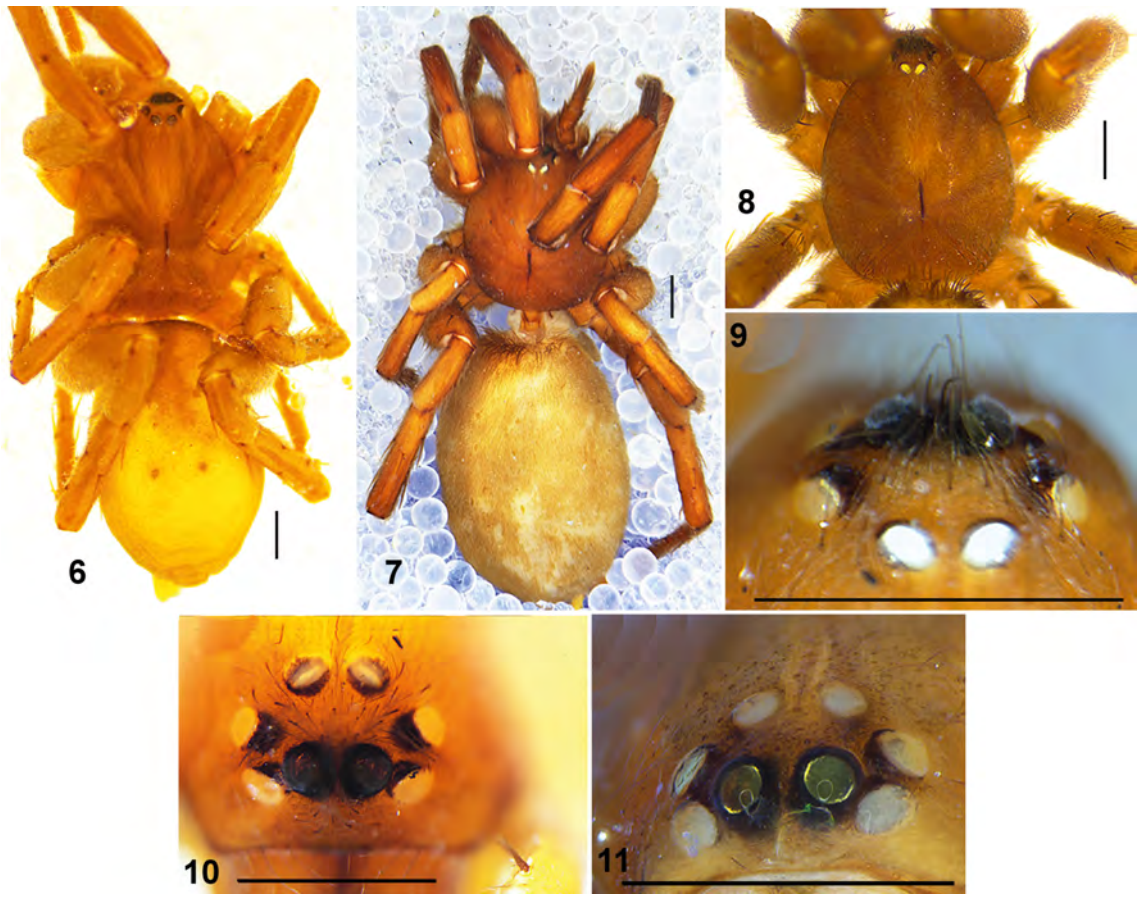
***Zelanda erebus* (L. Koch, 1873)** (Figs. 1–2, 4, 7–8, 12, 15–17, 19–24, 57–61, 139–141, 177–178)

Drassus erebus L. Koch, 1873: 387; Holotype ♂ (OUMNH, probably in O. P. Cambridge coll., not examined), New Zealand, Canterbury.

Drassus ochropus L. Koch, 1873: 390; Holotype ♀ (OUMNH), probably in O. P. Cambridge coll., not examined), New Zealand, Canterbury.

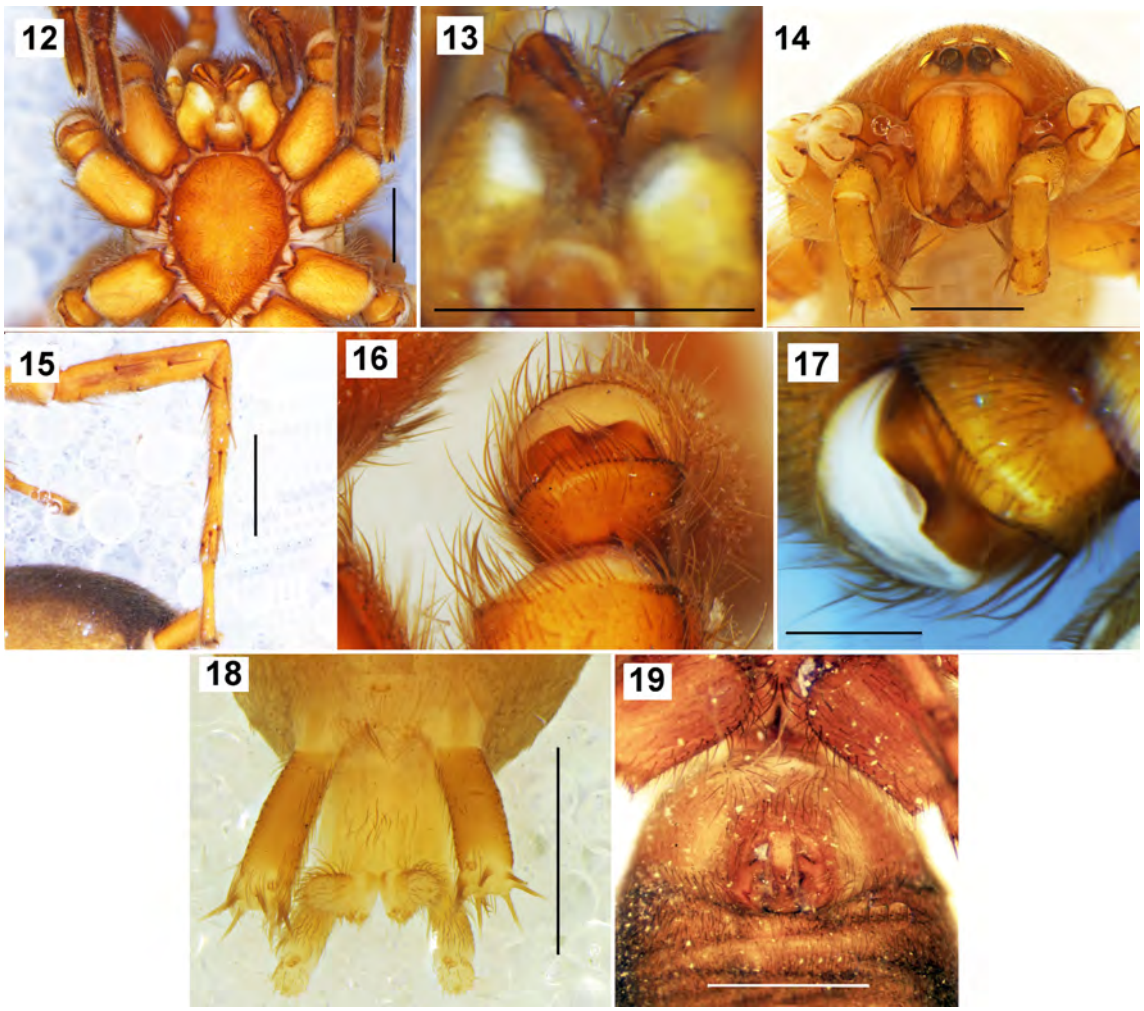
Taieria erebus: Forster (1979): 49–50, Figs. 212–219.

Material: NEW ZEALAND: North Island: 1♂ (OMD), Flat Point, 41°14′S 175°57′E, coastal plain, 05 September 1970, C. Wilton; 1♀, 2 juv. (MONZ, 102), Northland, Houhora, 34°47′S 173°06′E, 23 July 1975, C. Wilton; 1♀ (MONZ), Rotorua area, Ngapuketurua, Kaingaroa Forest, 38°08′S 176°15′E, 2000 feet, 30 December 1965, M. Neill; 1♀ (OMD), Karori Hills, 41°17′S 174°44′E, 06 July 1940, R. Forster; 3♂, 6♀ (MONZ), Orongorongo Valley, 41°14′S 175°03′E, hard beech, log trap, emergence trap, pitfall, 23 December 1983, 01, 16 December 1991, 01 January 1993, January, February, December 1995, February 1996, A. Moeed, M. Meads, B. Fitzgerald, P. Berben, J. Alley; 1♂ (OMD), Wellington, Red Rocks, 41°21′S 174°43′E, 31May 1941, F. Bodley; 1♂ (MONZ), Wellington, 41°17′S 174°46′E, inside house, April 1993, P. Sirvid; 1♀ (OMD), Wellington, Signal Hill, 41°17′S 174°46′E, 10 June 1941, F. Bodley; 1♂ (OMD), Wellington, Waikanae, 40°52′S 175°03′E, 06 February 1943, R. Forster. South Island: 1♀ (OMD), Canterbury, Mt. Algidus, 43°14′S 171°21′E, 11 March 1946, R. Forster; 1♂ (OMD, 1149), Allans Beach, 45°52′S 170°41′E, 06 November 1965, C. Wilton; 1♀ (OMD, 1179), Balclutha Plant Reserve, 46°13′S 169°44′E, 21 April 1966, C. Wilton; 1♀ (OMD, 1140), Broken River near Castle Hill Station, 43°11′S 171°25′E, 29 September 1966, C. Wilton; 3♂, 5♀, 1 juv. (OMD, MONZ, LUNZ), Christchurch, 43°35′S 172°38′E, in house, in garden, 1940, 12 December 1943, November 1950, 10 September 1954, 23 September 1991, T. Lomas, R. Pilgrim, R. Forster, S. Thomson; 1♀ (OMD), Christchurch, Deans Bush, 43°04′S 172°37′E, 20 December 1949, J. Dugdale; 1♀ (OMD), Christchurch, Victoria Park, 43°35 172°38′E, 26 October 1960, R. Leech; 1♀ (OMD), Christchurch, Harewood Airport, 43°28′S 172°32′E, 22 October 1959, E. Young; 1♀ (OMD), Coopers Creek, 43°57′S 171°15′E, 01 December, 1948, R. Forster; 2♂, 1♀ (OMD), Deepdell, 45°48′S 169°15′E, pitfall, 06 December 1967, 27 January, 20 November 1968, C. Wilton; 1♀ (OMD), Dunback Hill overlooking, McRaes Flat Road, 45°24′S 170°32′E, 07 January 1967, C. Wilton; 6♂, 5♀ (OMD, 1163), Dunedin, Baldwin Street, 45°52′S 170°30′E, in house, 15 October 1952, 10 August 1958, 06, 31 October, December 1961, 20 February, 31 March, November 1962, 23 October 1965, 28 October 1966, W. Poppelwell, B. Marples, R. Forster; 2♀, 4 juv. (OMD), Evansdale Glen, 45°43′S 170°34′E, 21 October 1973, R. Forster; 2♀ (OMD), Filly Burn Bridge, 45°20′S



Figs. 6–11: *Zelanda elongata* (Forster, 1979), male (6), *Z. erebus* (L. Koch, 1873), female (7–8), *Z. kaituna* (Forster, 1979), female (9–10), and *Avstroneulanda hostosi* gen. n. et sp. n., male (11). **6–7** habitus, dorsal view; **8** cephalothorax, dorsal view; **9** eyes, dorsal view; **10–11** same, anterior view. Scale bars = 1 mm (6–9, 11), 0.5 mm (10).

170°17′E, pitfall, 26 December 1968, 27 January 1969, C. Wilton; 1♂ (OMD), Flagstaff, 45°05′S 168°40′E, 20 December 1983, R. Forster; 1♀ (OMD), Golden Bay, Stewart Island, 46°54′S 168°07′E, November 1959, H. Watt; 1♀ (OMD), Golden Point, Macraes Flat, 45°22′S 170°24′E, 07 January 1967, C. Wilton; 1♂ (OMD, 2021), near Hindon, 45°43′S 170°18′E, 30 November 1969, C. Wilton; 1♀ (OMD), Kaiapoi, 15 km N of Christchurch, 43°23′S 172°38′E, 07 February 1960, R. Leech; 2♀ (LUNZ), Kaitorete Spit, 43°49′S 172°35′E, sand dune, under driftwood, 19 November 1992, C. Vink; 1♀ (OMD), Kowhai Bush, 46°16′S 169°47′E, 29 December 1974; 2♀ (OMD), corner Little Kyeburn Naseby-Dansey Pass Roads, 45°08′S 170°14′E, pitfall, 06 January 1968, 15 January 1969, C. Wilton; 4♂ (OMD), Logan Burn, 45°28′S 169°54′E, 900 m, pitfall, 15 December 1982–12 January 1983, 26 January–11 February 1983, B. Barratt; 1♂, 1♀ (OMD), Maniototo Road, near Patearoa, 45°16′S 170°03′E, pitfall, 25 October 1967, 06 October 1969, C. Wilton; 1♀ (OMD, 1141), Manuherikia Road, St. Bathans Road, 45°05′S 169°37′E, 15 January 1966, C. Wilton; 1♀ (NZAC, 92170), Motunau Island, 43°03′S 173°04′E, pitfall, 01–05 December 1967, A. Whiltaker; 1♂, 1♀ (OMD), Naseby, mid Kyeburn Road, 45°01′S 170°08′E, pitfall, 21 February, 20 November 1♀1968, C. Wilton; 1♀ (OMD), Stewart Island, Oban, 46°50′S 167°52′E, 23 February 1972, C. Wilton; 1♀ (OMD), Okuti Valley, 43°47′S 172°49′E, 22 November 1975, R. Forster; 1♀ (OMD), Otago, MacKenzie Country, Omarama, 44°29′S 169°57′E, October 1962, W. Popplewell; 1♀ (OMD), Dunedin, Opoho Bush, 45°51′S 170°31′E, January 1946, T. Smith; 1♂, 4♀ (OMD), Patearoa, 45°16′S 170°03′E, pitfall, 16 January 1968, 15 January, 06 March 1969, C. Wilton; 1♂ (OMD), Canterbury, Peel Forest, 43°54′S 171°15′E, 30 September 1966, R. Forster, C. Wilton; 1♀ (OMD), Portobello, 45°49′S 170°39′E, 09 January 1969, R. Forster, C. Wilton; 1♂ (OMD), Cantenbury, Purau Stream, 43°39′S 172°45′E, 16 September 1962, R. Bigelow; 1♂, 2♀ (OMD, 1166), Canterbury, Rangitata Bridge, 44°04′S 171°22′E, under stone, 10 December 1955, 31 October 1966, B. Marples, R. Forster; 1♀ (OMD), Riverton, 46°21′S 168°01′E, 24 November 1970, R. Forster, C. Wilton; 1♀ (OMD), Roaring Meg, Kawarau Gorge, 45°03′S 169°08′E, 19 November 1974, J. Dugdale; 2♀ (OMD), Ski Hut, 2 km S of Summit Rock, Rock and Pillar Ecological Survey, 44°46′S 170°18′E, 1368 m, edge of bog, pitfall, 18 January, 28 February 1969, J. Child; 1♂ (OMD), W of Middlemarch, Rock and Pillar Ecological Survey, 45°30′S 170°07′E, 608 m, rocky hillside, pitfall, 31 December 1968, J. Child; 1♀ (OMD), Matagouri Scrub, Lug Creek, Rock and Pillar Ecological Survey, 45°25′S 170°07′E, pitfall, 18 December 1968, J. Child; 1♀ (OMD), Southland, Orepuki, 46°16′S 167°43′E, under log, 09 May, 1944, R. Forster; 2♀ (OMD), Cook, The Sentinel, 44°43′S 168°01′E, 03 December 1953,



Figs. 12–19: *Zelanda erebus* (L. Koch, 1873), female (12, 15–17, 19), *Z. kaituna* (Forster, 1979), female (13), and *Avstroneulanda hostosi* gen. n. et sp. n., female (14, 18). **12** sternum, ventral view; **13** chelicera, posterior view; **14** eyes, anterior view; **15** tibia, metatarsus, and tarsus, leg IV, anterior view; **16** trochanter leg III, ventral view; **17** trochanter leg IV, ventral view; **18** spinnerets, ventral view; **19** abdomen, epigyne, ventral view. Scale bars = 1 mm.

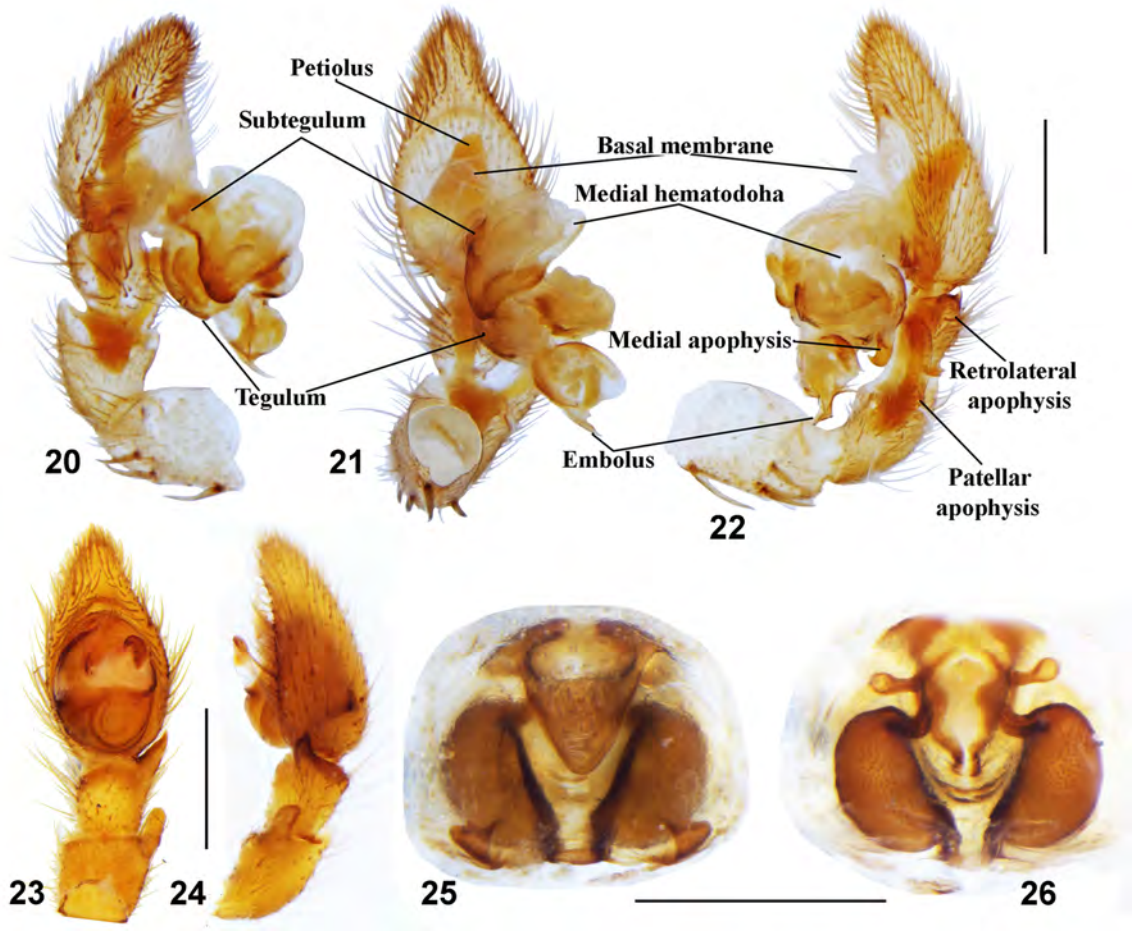
B. Holloway; 1♀ (OMD), Stewart Island, 46°50′S 167°52′E, January 1956, H. Watt; 1♀ (OMD), Stewart Island, Halfmoon Bay, 46°53′S 168°09′E, 10 March 1951, 0. Allan; 3♀ (OMD), Swinburn Bridge, 45°24′S 169°07′E, pitfall, 16 December 1968, 06, 29 March 1969, C. Wilton; 2♂, 1♀ (OMD), Taieri, 45°23′S 170°18′E, dead cabbage tree leaves, 26 January 1951, 10 October 1973, R. Forster; 2♂ (OMD), Taieri Ridge, Deep Dell-Fillyburn, 45°23′S 170°18′E, summit, 12 December 1968, C. Wilton; 1♀ (OMD, 28/91), Taitapu, 43°40′S 172°32′E, November 1980, A. W. P.; 2♀ (OMD), Te Anau, 45°25′S 167°41′E, 12 February 1983, R. Forster; 1♂ (OMD), N of Tiroiti, 45°15′S 170°15′E, summit, steep grade, 12 December 1968, C. Wilton; 1♀ (OMD), near Waipiata, 45°10′S 170°09′E, pitfall, 14 October 1968, C. Wilton; 3♂ (OMD), Waipori, 45°49′S 169°52′E, 520 m, tussock, pitfall, 07–21 November, 05–19 December 1978, B. Barratt; 1♂ (OMD), Dunedin, Wakari, 45°51′S 170°28′E, 10 November 1982, D. J. H.; 1♂, 1♀ (OMD), Wedderburn, 45°02′S 170°00′E, pitfall, 15 October 1967, 20 November 1968, 16 February 1969, C. Wilton; 1♀ (OMD), Canterbury, Weka Pass, 43°00′S 172°41′E, 12 January 1947, B. Marples; 1♂ (OMD), Whale Island, Bay of Plenty, 43°53′S 172°48′E, 27 August 1970; 1♂, 1♀ (OMD, LUNZ), Canterbury, Wooden Beach, 43°20′S 172°42′E, beach, amongst marram grass, 26 December 1957, 25 October 1992, R. Pilgrim, C. Vink. New Zealand: 1♀ (OMD), Spencer Park, March 1983, R. Jackson.

Diagnosis: Members of this species can easily be separated from the congeners by the presence of long with slightly bend dorsally distal part of patellar apiphysis of male (Figs. 58–59), and narrow scapus reached of median of female epigyne, narrow and deep atrium of epigyne with distinctive posterolateral pockets (Fig. 60–61).

Distribution: North and South Islands, New Zealand.

Habitats: Forests, beaches, rocky hillside, gardens, inside houses, sand dunes, edge of bog; can be found under logs, stones, opoho and deans bushes, dead cabbage tree leaves, marram grass, inside buildings.

Description of male: Total length 4.65. Carapace 2.30 long, 1.70 wide. Femur II 1.63 long. Carapace light yellow brown; abdomen grey brown; legs yellow to light brown. Eye sizes and interdistances: AME 0.11, ALE 0.11, PME 0.12, PLE 0.14, AME-AME 0.10, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.07, ALE-PLE 0.06; MOQ length 0.37, front width 0.29, back width 0.30. Leg spination:



Figs. 20–26: *Zelanda erebus* (L. Koch, 1873), male (20–24) and *Z. kaituna* (Forster, 1979), female (25, 26), copulatory organs. **20** expanded tripartite male palp, prolateral view; **21** same, ventral view; **22** same, retrolateral view; **23** male palp, ventral view; **24** same, retrolateral view; **25** epigyne, ventral view; **26** vulva, dorsal view. Scale bars = 0.5 mm.

femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-3, r0-1-1; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-1-0; II v1-1-1; III p0-2-1, r0-2-2, v2-2-2; IV p1-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-2-2, p1-1-1, r1-1-1, v2-2-2; IV d0-2-2, p1-1-1, r1-2-1, v2-2-2. Retrolateral tibial apophysis almost triangle, robust, slightly hooked (Fig. 59), median apophysis wide, distinctively hooked on the tip (Fig. 23, 58, 140), embolus narrow sharply pointed on tip (Figs. 21, 22); patellar apiphysis long, with slightly bend dorsally distal part (Figs. 23, 59, 139–141).

Description of female: Total length 9.50. Carapace 3.60 long, 2.75 wide. Femur II 2.45 long. Carapace, abdomen and legs have the same coloration as male, but little darker (Figs. 7, 8). Eye sizes and interdistances: AME 0.16, ALE 0.21, PME 0.17, PLE 0.16, AME-AME 0.07, AME-ALE 0.04, PME-PME 0.09, PME-PLE 0.13, ALE-PLE 0.07; MOQ length 0.50, front width 0.40, back width 0.40 (Figs. 1, 8). Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v2-2-1; II v1-1-1; III p0-1-1, r0-1-1, v2-2-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-2-2, p1-1-1, r1-1-1, v2-2-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2 (Figs. 15–17). Epigyne with narrow scapus reached of midpiece of atrium of epigyne, atrium wide and deep, widest in the middle with tiny posterolateral pockets (Figs. 19, 60, 177), spermathecae oval, closely spaced with long, anteriorly extended U-shaped epigynal ducts (Figs. 61, 178).

***Zelanda elongata* (Forster, 1979)** (Figs. 6, 62–66, 142–144, 179–180)

Taieria elongata Forster, 1979: 50–51, figs. 208, 220–223.

Types: Holotype ♀ (OMD), NEW ZEALAND: South Island, Otago, Balclutha Plant Reserve, 46°13′S 169°44′E, 20 November 1958, R. Forster. Allotype: 1♂ (OMD), New Zealand (South Island), between Taieri Mouth and Brighton, 45°56′S 170°19′E, taken on bank above tide level, 27 September 1968, C. Wilton.

Other material: NEW ZEALAND: North Island: 1♀ (AMNZ, 6000), Poor Knights Islands, Tawhiti Rahi Island, 35°27′S 174°43′E, northern slopes near lighthouse, Pohutukawa leaf litter, 08 December 1980, K. Wise. South Island: 1♀ (OMD), Otago, Allans Beach, 45°52′S 170°41′E, 02 January 1952, B. Marples; 1♀, (OMD), Bull Creek, 43°27′S 170°00′E, 07 November 1958, R. Forster; 1♂, 1♀, 1 juv. (OMD), Chatham Island, 45°33′S 166°52′E, litter, 11 February 1969, A. Wriah; 1♂, 1♀ (OMD), Cromwell, 45°02′S 169°12′E, under stone, 07 November 1958, R.

Forster; 1♀ (OMD), Fiorland, Lake Manapouri, 45°30′S 167°30′E, 6 February 1946, R. Forster; 1♀ (OMD), Manuka Gully, 43°52′S 170°11′E, 16 January 1955, B. Marples; 1♀ (NZAC, 92170), Pounawea E of Owaka, 46°28′S, 169°41′E, sifted litter, 18 January 1978, B. Kuschel; 6♀ (OMD, 1167, 1168), Waipori Gorge, 45°49′S 169°52′E, 26 November 1965, 11 December 1965, 8 December 1966, 13 November 1970, R. Forster, C. Wilton; 1♀ (OMD, 55.16), Wanaka district, 44°42′S 169°07′E, January 1955, B. Marples.

Diagnosis: Males can easily be recognized by the long, hooked tibial apophysis (Figs. 62–64, 143), females by long, narrow scapus, and elongated atrium of epigyne (Figs. 65, 179).

Distribution: South Island and Poor Knights Islands, New Zealand.

Habitats: Hillsides, on bank above tide level; can be found under stones and leaf litter.

Description of holotype female: Total length 6.20. Carapace 2.47 long, 1.97 wide. Femur II 1.87 long. Eye sizes and interdistances: AME 0.11, ALE 0.14, PME 0.12, PLE 0.14, AME-AME 0.07, AME-ALE 0.04, PME-PME 0.04, PME-PLE 0.10, ALE-PLE 0.07; MOQ length 0.38, front width 0.30, back width 0.29. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; femora: I v1-1-1; II v1-1-1; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2; metatarsus: I v1-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with long, narrow scapus, the elongated atrium of epigyne with distinctive posterolateral pockets (Figs. 65, 179), spermathecae elliptical, closely spaced with long, narrow, anteriorly extended U-shaped epigynal ducts (Figs. 66, 180).

Description of allotype male: Total length 5.40. Carapace 2.57 long, 1.87 wide. Femur II 1.90 long. Carapace yellowish brown; abdomen yellow grey; legs light brown (Fig. 6). Eye sizes and interdistances: AME 0.11, ALE 0.15, PME 0.13, PLE 0.16, AME-AME 0.09, AME-ALE 0.03, PME-PME 0.06, PME-PLE 0.09, ALE-PLE 0.06; MOQ length 0.36, front width 0.31, back width 0.29. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v2-2-2; II v2-1-1; III p0-1-1, r0-1-1, v2-1-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-2-2, p1-0-1, r1-1-1, v2-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Retrolateral tibial apophysis straight, sharply pointed (Figs. 63–64, 143–144), median apophysis narrow, strongly hooked on the tip (Figs. 23, 58, 140), embolus narrow, sharply pointed on tip, conductor narrow, long and transparent (Figs. 21–22, 58); patella with proximal spur dorsally (Fig. 64), patellar apophysis long, strongly hooked in distal part (Figs. 63–64, 143–144).

***Zelanda kaituna* (Forster, 1979)** (Figs. 9–10, 13, 25–26, 67–71, 181–182)

Taieria kaituna Forster, 1979: 52, figs. 224–227.

Types: Holotype ♂ (OMD), NEW ZEALAND: South Island, Canterbury, Kaituna Valley, 43°44′S 172°41′E, 01 November 1966, R. Forster. Allotype: 1♀ (OMD), together with the holotype.

Other material: NEW ZEALAND: North Island: 1♀ (OMD), Feilding, 40°13′S 175°32′E, 26 December 1949, R. Forster. South Island: 1♀ (OMD), Birdlings Flat, 43°49′S 172°41′E, litter, 17 November 1976, J. Dugdale; 1♀ (OMD), Nelson, Boulder Bank, 41°09′S 173°24′E, 29 May 1973, G. Ramsay, K. Bonnington, A. Walker; 1♂ (LUNZ), Christchurch, 43°35′S 172°38′E, in house, 02 November 1994, C. Vink; 2♀ (OMD), Canterbury, Governors Bay, 43°37′S 172°39′E, under stones, 04 January 1949, I. Creswell; 1♀ (OMD), Kennedys Bush, 43°37′S 172°36′E, 30 November 1946, R. Forster; 1♀ (OMD), Kowhai Bush, 46°16′S 169°47′E, 29 December 1974; 1♂, 1♀ (OMD), Lincoln College, 43°38′S 172°27′E, pitfall, P. Campbell; 1♀ (OMD), Hapuka River, Long Creek, 43°57′S 168°53′E, under stone, 26 December 1974; 1♀ (MONZ), Orongorongo Valley, 41°14′S 175°03′E, under sheet of tin on moss in Kanuka Green Station, 01 February 1995, B. M. F.; 1♀ (OMD), Nelson, Waimea West, Palmers Bush, 41°49′S 171°34′E, litter, 20 October 1971, G. Ramsay; 1♂ (OMD), Ship Cove, 41°05′S 174°14′E, litter, 30 November 1972, J. Dugdale.

Diagnosis: Males can easily be recognized by the long, wide, slightly curved tibial apophysis (Figs. 68–69), females by short, wide, triangle scapus, and almost round of atrium of epigyne (Figs. 70, 181).

Distribution: New Zealand.

Habitats: Bays, under stones, on bushes, in litter, under sheet of tin in moss, inside houses.

Description of holotype male: Total length 6.90. Carapace 3.35 long, 2.60 wide. Femur II 2.60. Carapace yellow brown; abdomen yellow brown with dark brown transverse stripes; legs brown. Eye sizes and interdistances: AME 0.14, ALE 0.19, PME 0.16, PLE 0.17, AME-AME 0.13, AME-ALE 0.04, PME-PME 0.04, PME-PLE 0.16, ALE-PLE 0.07; MOQ length 0.51, front width 0.43, back width 0.40. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-1-1; III d1-3-3; IV d1-3-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v2-2-2; II v2-2-2; III p0-1-1, r0-1-1, v2-2-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Retrolateral tibial apophysis narrow, directed retrolaterally, slightly bent on the tip (Figs. 68–69), median apophysis small, hooked on the tip, embolus narrow, sharply pointed on the tip, conductor wide, long, and partly transparent (Figs. 67–69); patellar apophysis long, wide, slightly curved, with dark chitin retrolateral border and transparent, prolateral border of apophysis (Figs. 68–69).

Description of allotype female: Total length 5.50. Carapace 2.07 long, 1.50 wide. Femur II 1.37. Eye sizes and interdistances: AME 0.10, ALE 0.10, PME 0.11, PLE 0.09, AME-AME 0.05, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.07, ALE-PLE 0.03; MOQ length 0.32, front width 0.24, back width 0.24 (Figs. 9, 10). Leg spination: femora:

I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-1-0; II v0-1-1; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2; metatarsus: I v1-0-0; II v2-0-0; III d0-2-2, p1-1-1, r1-1-1, v2-1-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with short, wide, triangle scapus, and almost round of atrium of epigyne with large posterolateral pockets (Figs. 25, 70, 181), spermathecae large, been-shaped, laterally spaced, epigynal ducts anteriorly extended, U-shaped, thick and short (Figs. 26, 71, 182).

***Zelanda obtusa* (Forster, 1979)** (Figs. 72–77, 145–147, 183–184)

Taieria obtusa Forster, 1979: 53, figs. 228–233.

Types: Holotype ♂ (OMD), NEW ZEALAND: South Island, Otago, Cromwell, 45°02′S 169°12′E, under stones on ground, 21 October 1950, R. Forster. Allotype: 1♀ (OMD), together with the holotype.

Other material: NEW ZEALAND: South Island: 1♂, 1♀ (FSCA), Christchurch, 43°31′S 172°38′E, no date and collector; 1♂ (OMD), Christchurch, Spencers Beach, 43°31′S 172°38′E, sand beach, under log, 10 October 1973; 1♂, 4 juv. (OMD), Cromwell, 45°02′S 169°12′E, 21 October 1959, R. Forster; 3♀, 18 juv. (NZAC, 92170), Cromwell, Beetle Reserve Cemetery Road, 45°02′S 169°12′E, tussock, litter, dead *Poa* sp. leaves, 15, 17 November 1977, J. Watt; 1♀ (OMD), Cromwell, Sandflat Road, 45°02′S 169°12′E, pitfall, 19–28 November 1974, J. Watt; 1♂, 1♀ (OMD), Cromwell Gorge, 2 km SE of Cromwell, E bank of Clutha below Dunston Gold monument, 45°06′S 169°18′E, pitfall, 21–27 November 1974, J. Watt; 1♂, 1♀ (OMD), Otago, East Branch Eweburn, 45°09′S 170°06′E, pitfall, 20 November 1968, 27 January 1969, C. Wilton; 1♀ (OMD), Flagstaff, 45°05′S 168°40′E, 27 December 1979, R. Forster; 1♀ (OMD), Hokitika, 42°42′S 170°57′E, under log, 04 October 1974; 6♀ (OMD), Kaikoura, 42°24′S 173°41′E, 16 May 1974; 1♂ (OMD), Dunedin, Cemetery Road, Opoho Bush, 45°51′S 170°31′E, pitfall, 17–23 November 1970, C. Wilton; 1♂, 2♀ (OMD), Waipori, 45°49′S 169°52′E, 520 m, tussock, pitfall, 05 November–21 December 1978, 16–31 January, 28 February–14 March 1979, B. Barratt.

Diagnosis: Males can easily be recognized by the short and strait tibial apophysis (Figs. 73–75, 146–147), females by long, narrow scapus, and elongated atrium of epigyne (Figs. 76, 183).

Distribution: South Island, New Zealand.

Habitats: Sand beaches, tussock grass, under logs, stones, opoho bushes and litter.

Description of holotype male: Total length 6.10. Carapace 3.15 long, 2.50 wide. Femur II 2.20. Carapace light yellow brown with darker borders; abdomen grey brown with vague reticulation, redish anteromedian triangle and pairs of small spots; legs light yellow brown. Eye sizes and interdistances: AME 0.14, ALE 0.19, PME 0.17, PLE 0.17, AME-AME 0.10, AME-ALE 0.03, PME-PME 0.05, PME-PLE 0.14, ALE-PLE 0.06; MOQ length 0.47, front width 0.39, back width 0.37. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v2-2-2; II v2-2-2; III p0-1-1, r0-1-1, v2-2-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Retrolateral tibial apophysis triangle, robust, sharply pointed (Fig. 74), tibia dorsal with the small, proximal spur (Fig. 75), median apophysis short, narrow, hooked on the tip (Figs. 73–74, 146), conductor large extended anteriorly to the ventral part of cymbium, embolus narrow, blunt (Figs. 72–73, 145, 147); patellar apophysis short, strait and flat (Figs. 73–75, 146–147).

Description of allotype female: Total length 5.70. Carapace 2.60 long, 2.07 wide. Femur II 1.83. Females little darker than males. Eye sizes and interdistances: AME 0.14, ALE 0.14, PME 0.13, PLE 0.14, AME-AME 0.07, AME-ALE 0.03, PME-PME 0.04, PME-PLE 0.10, ALE-PLE 0.06; MOQ length 0.41, front width 0.32, back width 0.28. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV 1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-1-1; II v0-1-1; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p1-1-0, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-1-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with long and narrow scapus covered more than 2/3 of the atrium of epigyne, atrium elongated, shallow with large, posterolateral pockets (Fig. 76, 183), spermathecae large, ellipsoid, laterally spaced, epigynal ducts short, D-shaped, anteriorly located (Figs. 77, 184).

***Zelanda miranda* (Forster, 1979)** (Figs. 78–82, 185–186)

Taieria miranda Forster, 1979: 54, figs. 234–239.

Types: Holotype ♀ (OMD), NEW ZEALAND: North Island, Auckland, Ohope Beach, 37°57′S 177°02′E, 01 October 1969, C. Wilton. Allotype: 1♂ (OMD), New Zealand (North Island), Cape Kidnappers, Hawkes Bay, 39°38′S 177°06′E, 21 January 1954, J. Dugdale.

Other material: NEW ZEALAND: North Island: 1♀ (OMD), Auckland, Red Mercury Island, 36°38′S 175°56′E, September 1971, D. Court; 1♀ (OMD), Taradale, Hawkes Bay, 39°32′S 176°50′E, R. Hutton; 1♀ (OMD), White Pine Bush, 37°59′S 176°57′E, R. Forster.

Diagnosis: Males can easily be recognized by the short, thick and slightly bent tibial apophysis (Figs. 78–80), females by short, narrowing posteriorly scapus, and almost quadrat atrium of epigyne (Figs. 81, 185).

Distribution: North Island, New Zealand.

Description of holotype female: Total length 6.50. Carapace 2.63 long, 2.00 wide. Femur II 1.90. Eye sizes and interdistances: AME 0.09, ALE 0.10, PME 0.14, PLE 0.13, AME-AME 0.09, AME-ALE 0.04, PME-PME 0.01, PME-PLE 0.09, ALE-PLE 0.04; MOQ length 0.40, front width 0.29, back width 0.30. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-1-1; II v0-1-1;

III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p1-0-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with short, narrowing posteriorly scapus, the atrium of epigyne almost quadrat, with a long, narrow and deep part in the middle, and with tiny posterolateral pockets (Figs. 81, 185), spermathecae large, bean-shaped, laterally located with narrow, anteriorly located U-shaped epigynal ducts (Figs. 82, 186).

Description of allotype male: Total length 4.60. Carapace 2.30 long, 1.80 wide. Femur II 1.65 long. Carapace brown with dark reticulation; abdomen dark brown with three pairs of small spots; legs brown. Eye sizes and interdistances: AME 0.11, ALE 0.13, PME 0.14, PLE 0.13, AME-AME 0.06, AME-ALE 0.02, PME-PME 0.07, PME-PLE 0.07, ALE-PLE 0.04; MOQ length 0.34, front width 0.26, back width 0.31. Leg spination: femora: I d1-1-0, p0-0-1; II d1-0-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v2-2-1; II v1-1-1-1; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-1-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Retrolateral tibial apophysis short and narrow, directed retrolaterally, with slightly bent the tip anteriorly (Figs. 79–80), tibia proximal with small, dorsal spur (Fig. 80), median apophysis wide, small, and hooked, embolus narrowing on the tip, conductor narrow and long; patellar apophysis short, thick and slightly bent ventrally (Figs. 78–80).

***Zelanda titirangia* (Ovtsharenko, Fedoryak & Zakharov, 2006)** (Figs. 83–85, 148–150)

Taieria titirangia Ovtsharenko, Fedoryak & Zakharov, 2006: 92–93, fig. 4A–C.

Type: Holotype ♂ (OMD 69/177, examined), NEW ZEALAND: South Island, Marlborough, Titirangi, 41°23′S 174°03′E, in litter, 22 October 1969, F. Alack.

Diagnosis: Males can easily be recognized by the lacking of any large and distinctive tibial apophysis (Figs. 83–85). Females are unknown.

Distribution: This species is known from only Titirangi area on South Island, New Zealand.

Description of holotype male: Total length 4.75. Carapace 2.25 long, 1.60 wide. Femur II 1.55. Carapace yellow brown with dark brown reticulation and borders; abdomen yellow grey with dark brown transverse stripes and redish anteromedian triangular spot; legs yellow. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.14, PLE 0.11, AME-AME 0.06, AME-ALE 0.02, PME-PME 0.01, PME-PLE 0.07, ALE-PLE 0.06; MOQ length 0.39, front width 0.24, back width 0.24. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-1-2; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-1; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p0-2-2, r0-1-2, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2; p1-1-1, r1-1-1, v2-1-2; IV d0-2-2, p1-1-1, r1-1-1, v2-1-2. Retrolateral tibial apophysis long and flat, directed retrolaterally, with slightly bent the tip anteriorly (Figs. 83–85), median apophysis wide and hooked, embolus narrow on the tip, conductor wide and long; patella with some elaboration retrolaterally, and without distinctive apophysis (Figs. 83–85).

Female unknown.

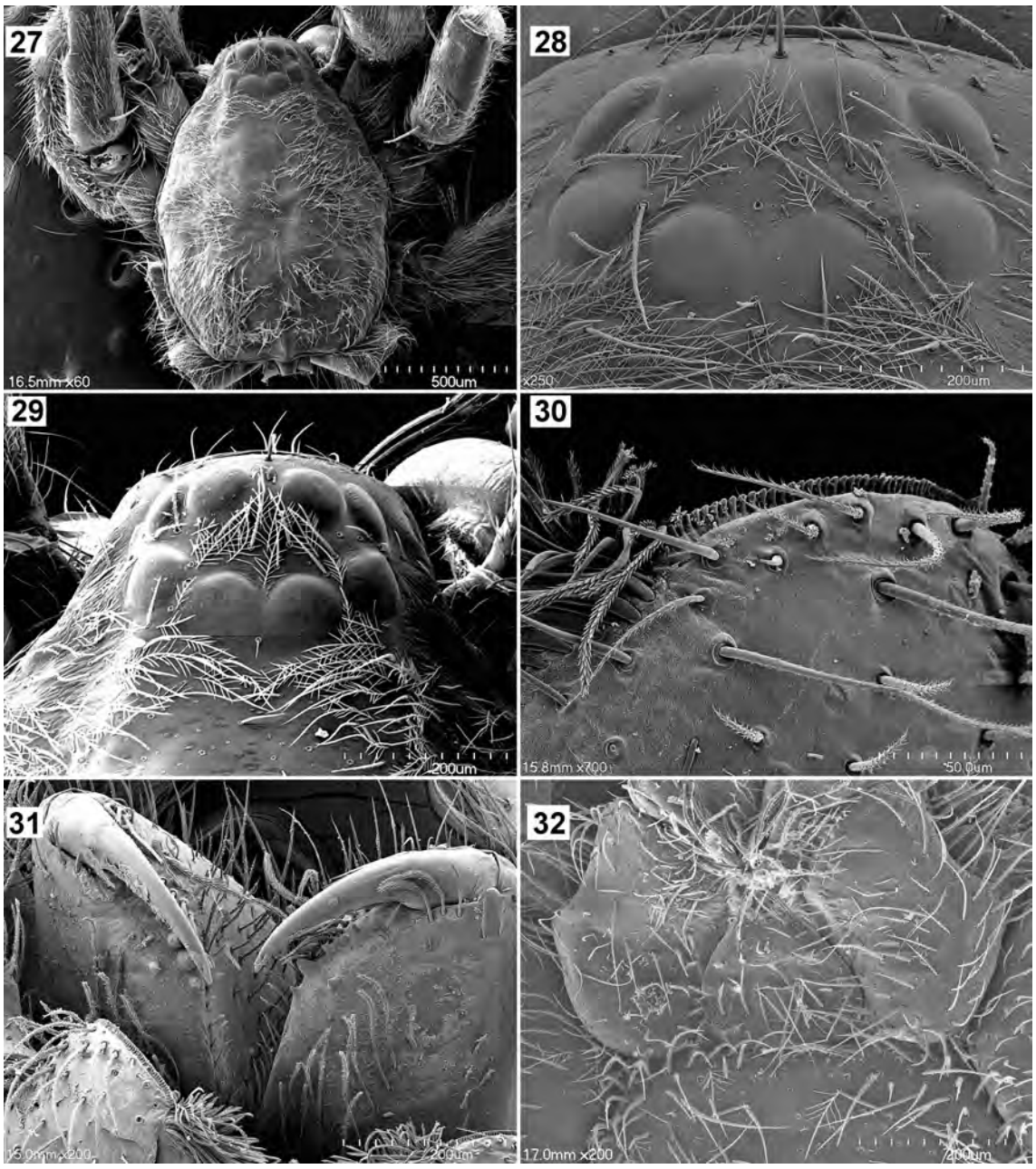
Avstroneulanda gen. n.

Type species: *Avstroneulanda grayi* gen. n. et sp. n.

Etymology: The generic name is an arbitrary combination of letters; feminine in gender.

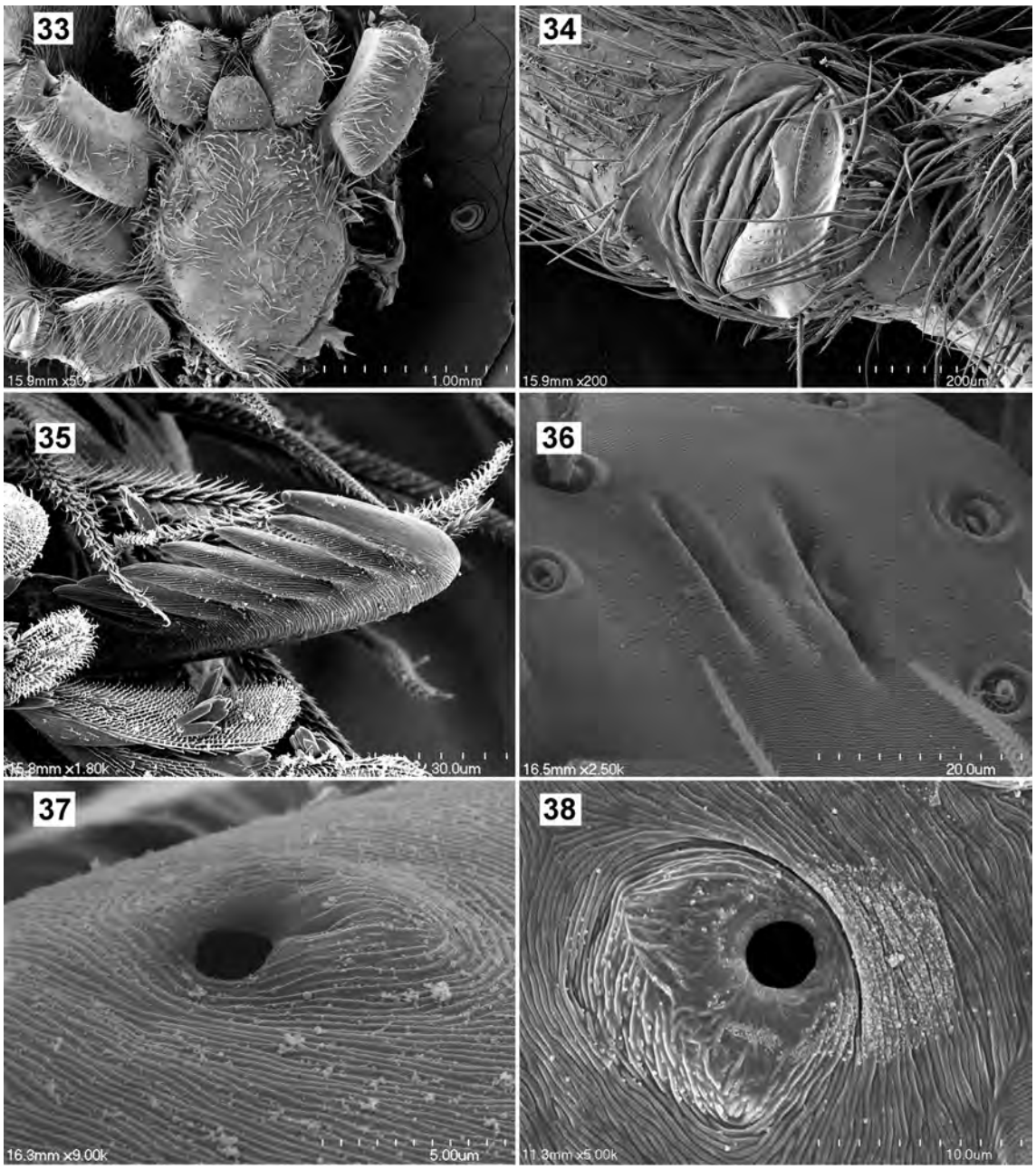
Diagnosis: Members of this genus can be recognized by the combined presence of large, rhomboid or irregularly shaped posterior median eyes that are closely spaced, flattened, and lightly coloured; and anterior lateral spinnerets (ALS) tubular with large piriform gland spigots and a distinctive hood. The males can also be distinguished by the long, curved patellar apophysis, the long, straight retrolateral tibial apophysis, and the dorsal proximal tooth or spur the palpal tibia (Figs. 3, 28, 46, 88, 98, 111); the females by the presence of the epigyne with a prominent median scapus of different sizes and shapes, the elongated epigynal atrium, and two small posterolateral pockets (Figs. 51, 89, 94, 112).

Description: Small to medium spiders, total length 3.15–5.90. Carapace elongated in dorsal view, narrowed just behind at the level of palps at head region, widest at the level of coxae II, lateral border undulate, usually red-brown with straight, dark mechanoreceptor setae, and heavily coated by setae; cephalic area slightly convex, thoracic groove short, longitudinal (Fig. 27). Eight eyes in two rows; from above, anterior eye row slightly procurved, posterior row strongly procurved; in front view, anterior row straight or slightly procurved, posterior row strongly procurved; AME circular, dark; PME large, rhomboid or irregularly shape, closely spaced, flattened, and light; ALE and PLE oval, light; AME usually equal to other subequal eyes, separated by roughly their radius, by less than their radius from ALE; PME closely spaced and separated by half of their radius from PLE; lateral eyes of each side separated by slightly less than their radius; MOQ usually longer than wide, slightly wider in front or equal (Figs. 3, 28–29). Clypeal height bigger than AME diameter (Fig. 10). Chelicerae, sternum, and mouthparts reddish brown to light brown, whitish. Chelicerae with 4–5 promarginal denticles and 1 retromarginal tooth (Figs. 5, 31). Labium slightly elongated, base and top slightly narrowed, posterior margin gently rounded, anterior margin medially invaginated, surface elevated (Figs. 32–33). Endites comparatively long, strongly convergent with strong distal scopula; obliquely and anteromedially depressed, narrowed at palpal insertion (Figs. 32–33); serrula long, with single row of separate teeth (Fig. 30). Sternum scutiform, much longer than wide, barely elevated, broad anteriorly, densely covered by setae, rebordered, not expanded anteriorly, with slight, triangular extensions to coxae; surface slightly tuberculate, with minor elevations opposite, and depressions between, coxae (Fig.



Figs. 27–32: *Avstroneulanda johnmurphyi* gen. n. et sp. n., male (27, 29, 32), female (30–31) and *A. grayi* gen. n. et sp. n., female (28). **27** cephalothorax, dorsal view; **28–29** eyes, dorsal view; **30** serrula on distal part of endites; **31** dentation on chelicera; **32** labium and endites, ventral view.

33). Abdomen ranging from grey-brown to yellowish brown dorsally, covered with plumose hairs (Figs. 41–42); males with brownish anterior scuta. Anterior lateral spinnerets (ALS) (female) tubular with one article, separated by more than their diameter (Figs. 18, 45), with two major ampullate and seven large piriform gland spigots and distinctive hood (Figs. 46–47); posterior medians of female with five wide cylindrical gland spigots in two longitudinal rows on posterior part, two minor ampullate gland spigots and 15 small aciniform gland spigots on anterior part (Fig. 48); posterior laterals with two articles, those of females with two greatly widened cylindrical gland spigots, two minor ampullate gland spigot and several (15–16) small aciniform gland spigots (Figs. 49–50). Leg formula: 4123. Typical leg spination pattern (only surfaces bearing spines listed): femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3, r0-1-1; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-0; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p1-0-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-2-0, p0-0-1, r0-0-1, v1-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Legs usually yellow brown with lighter tarsi; thick scopula on metatarsi and tarsi I, II and tarsi III, IV; tarsi with two eight-dented claws and well developed claw tufts (Fig. 35); trochanters deeply notched (Fig. 34). Metatarsi without distinctive preening comb; double row of trichobothria on tibiae and single rows on metatarsi and tarsi with. Female palpal femur, patella, tibia, and tarsus with long, thin spines; female palpal tarsus with long, basally dentate claw. Ultrastructure: cuticle of cephalothorax, legs and abdomen with long and erect, mobile setae (mechanoreceptor setae) sitting in deep socket, and densely covered with plumose setae with 11–12 appendages on each seta (Figs. 41–44). Tri-

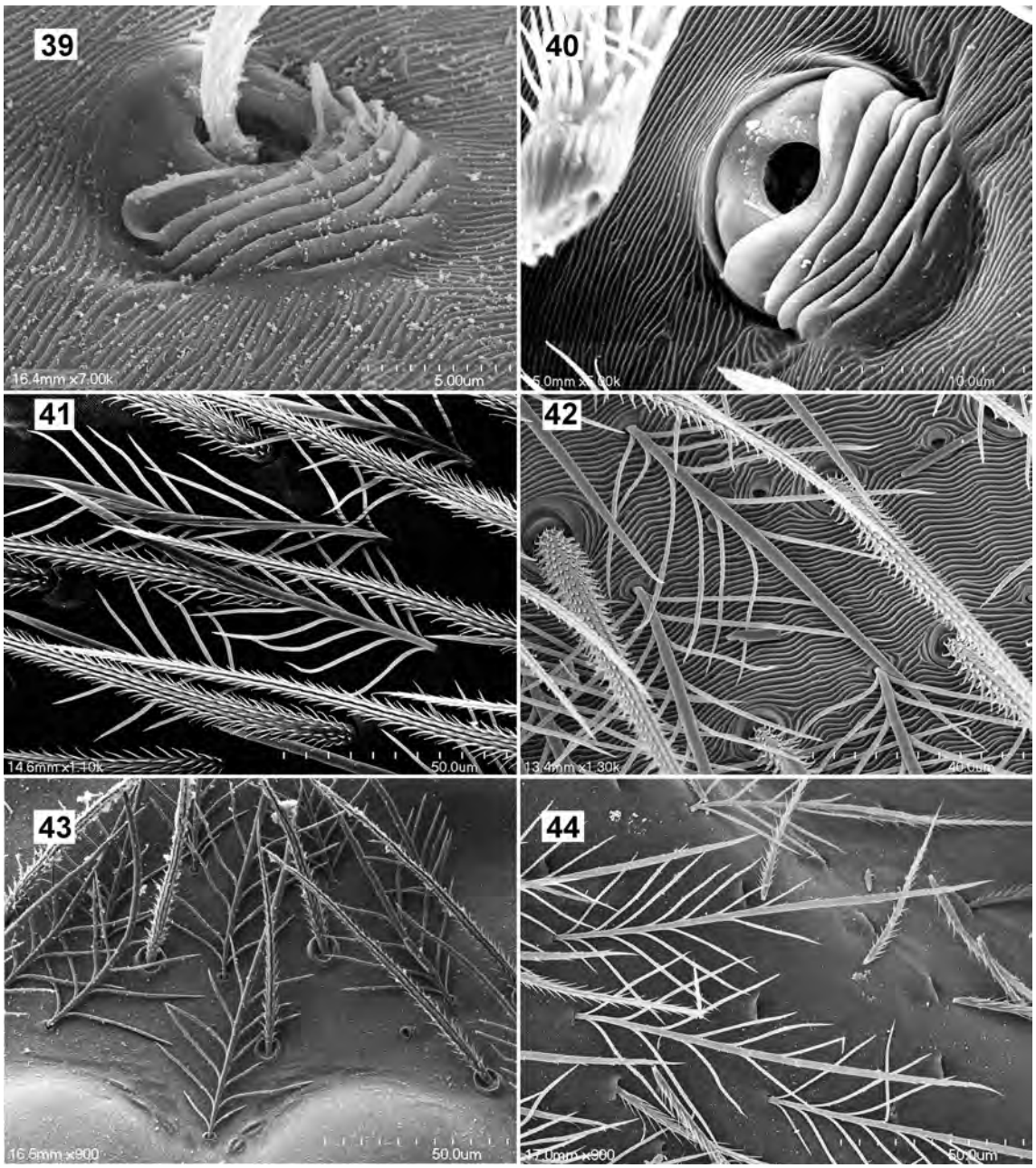


Figs. 33–38: *Avstroneulanda johnmurphyi* gen. n. et sp. n., male (35–37), female (33–34) and *A. grayi* gen. n. et sp. n., female (38). **33** sternum, ventral view; **34** trochanter, leg III, ventral view; **35** tarsal claw; **36** slit organ on leg I; **37–38** tarsal organ, dorsal view.

chobothria: crescent plate of bothrium slightly elevated and transversely ridged, with 8–9 long ridges generated from lateral parts of plate and occupied all surface of plate (Figs. 39–40). Tarsal organ on the distal end of tarsus round in shape, with smooth, chaotically lined cuticle, aperture round or oval with short grow and directed towards the end of the tarsus (Figs. 37–38). Slit organs distinctive, various shapes (Fig. 36). Male palp with distinctive, long, and curved on patellar apophysis (Figs. 53–54, 88) or without with some elaboration on the patella or none (Figs. 111, 116, 134), long, straight or modified retrolateral tibial apophysis and with the dorsal proximal tooth, or spur, or both on the tibia (Figs. 87–88, 93, 98, 108, 111). Median apophysis variable, from greatly enlarged to small, hooked, embolus straight with tegular modification, conductor undeveloped or absent (Figs. 53–56, 87, 92, 102, 107, 115, 120, 133). The female epigyne vary, with prominent median scapus, different size and shape, elongated epigynal atrium, deepest in the middle, with two small posterolateral pockets or none (Figs. 51, 89, 94, 112, 122); spermathecae oval, globular, small or large (Figs. 52, 90, 105, 123, 138).

The *grayi* species group

This group includes four species in which the male patellar apophysis, as a rule, is long and curved. In some cases, the retrolateral tibial apophysis is distally elaborated; in others, the apophysis is long, narrow, and almost straight. The female epigyne varies, but in three of the four species the scapus is long, club-shaped and the epigynal atrium



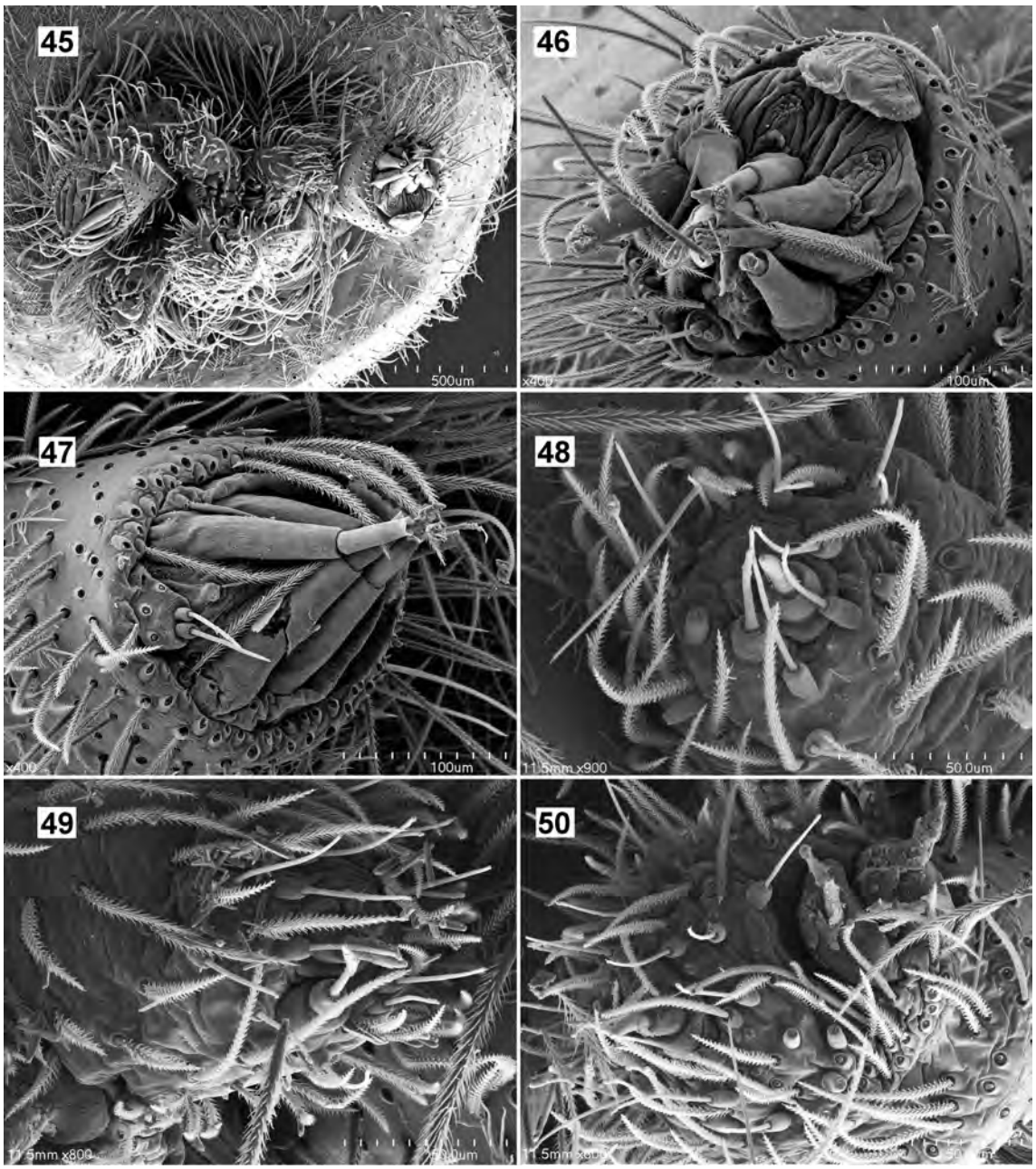
Figs. 39–44: *Avstroneulanda johnmurphyi* gen. n. et sp. n., male (39, 43) and *A. grayi* gen. n. et sp. n., male (44), female (40–42). **39–40** trichobothrium, dorsal view; **41–42** setae on dorsal side abdomen; **43** setae on dorsal side cephalothorax; **44** setae on leg I, dorsal view.

elongated, with two parallel deepest parts, an atrium of the epigyne with distinctive posterolateral pockets.

***Avstroneulanda grayi* gen. n. et sp. n.** (Figs. 28, 38, 40–42, 44, 45–52, 86–90, 151–153)

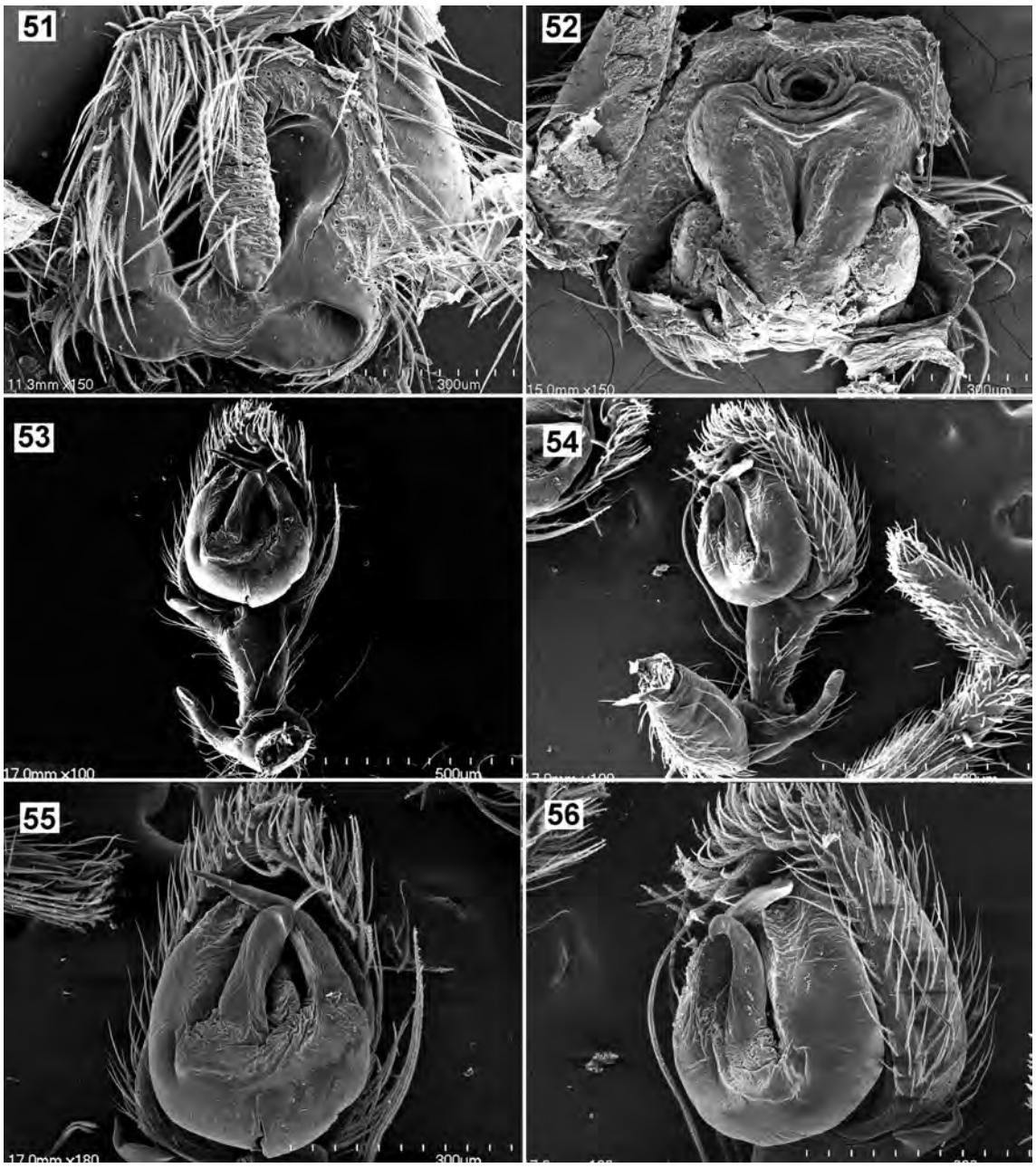
Types: Holotype ♂ (ANIC), AUSTRALIA: Australian Capital Territory, Wombat Creek, 6 km NE of Piccadilly Circus, 35°19′S 148°51′E, 750 m, February 1984, T. Weir, J. Lawrence & M.-L. Johnson. Paratype: 1♀ (ANIC), together with the holotype.

Other material: AUSTRALIA: Australian Capital Territory: 1♂, 1♀ (ANIC), Lees, Brindabella Ranges, 35°33′S 148°46′E, pitfall, March 1981, C. Dickman; 1♂ (ANIC), Piccadilly Circus, 35°22′S 148°48′E, 1240 m, February 1984, T. Weir, J. Lawrence & M.-L. Johnson; 1♂ (ANIC, 164), Piccadilly Circus, 35°22′S 148°48′E, 1240 m, gutter trap, March 1984, J. Lawrence, T. Weir, M.-L. Johnson; 4♂, 1♀ (1 male and female from this sample were taken as types) (ANIC), Wombat Creek, 6 km NE of Piccadilly Circus, 35°19′S 148°51′E, 750 m, February 1984, T. Weir, J. Lawrence & M.-L. Johnson; 2♂ (ANIC), Wombat Creek, 6 km NE of Piccadilly Circus, 35°19′S 148°51′E, 750 m, March 1984, T. Weir, J. Lawrence & M.-L. Johnson. New South Wales: 1♂ (AMS, KS 63429), Barren Grounds Nature Reserve, 14 km NW of Jamberoo, Illawarra Escarpment, 34°40′28″S 150°42′45″E, pitfall, 21–25 February 1999, L. Gibson; 1♂ (AMS, KS 63836), Brou Lake Road, Narooma, 36°08′52″S 150°06′03″E, 9 March 1999, L. Wilkie, R. Harris & H. Smith; 1♀ (AMS, KS 59458), Bulls Ground State Forest near Wauchope, 31°33′S 152°38′E,



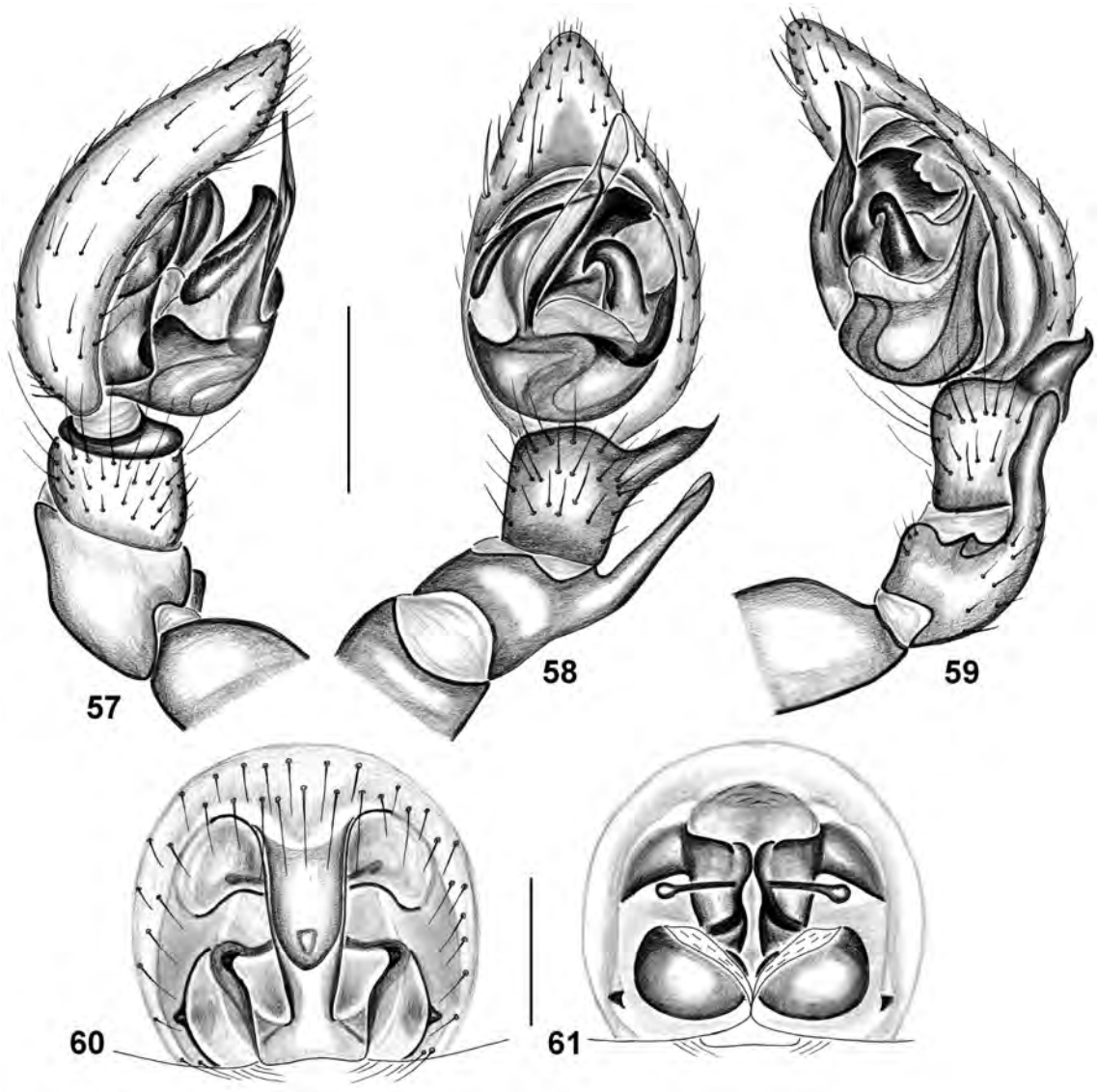
Figs. 45–50: *Avstroneulanda grayi* gen. n. et sp. n., female, spinnerets. **45** general, posterior view; **46–47** anterior lateral spinnerets (ALS); **48** posterior median spinnerets (PMS); **49–50** posterior lateral spinnerets (PLS).

ground, litter, March 1996, A. York; 2♂, 1♀ (AMS, KS 039532), Bungaree Trail from Barrington Tops Forest Road, 1.3 km S, Barrington Tops State Forest, 31°56′S 151°21′E, 1180 m, 04 February–09 April 1993, M. Gray & G. Cassis; 2♂ (AMS, KS 63843), Batemans Bay, 5.5 km NE, Kettle Road, 35°40′58″S 150°13′44″E, 17 March 1999, J. Tamawski & S. Lassau; 1♂, 1♀ (AMS, KS 63828, KS 63847), Batemans Bay, 32 km NW, Highway 54, 35°33′10″S 149°59′42″E, 16 March 1999, J. Tamawski & S. Lassau; 1♂ (AMS, KS 63845), Bodalla State Forest, Cobra Road, 36°10′55″S 150°00′50″E, 10 March 1999, J. Tamawski & S. Lassau; 1♂, 2♀ (AMS, KS 039531), Ballengara State Forest, Cooperabung Range Road, approx. 4.5 km N of Narang Road, 31°11′S 152°42′E, 90 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♂ (AMS, KS 039535), Coxs Fence Trail from Boundary Road, 0.3 km S, Nerong State Forest, 31°38′19″S 152°09′30″E, 70 m, 04 February–09 April 1993, M. Gray & G. Cassis; 2♂ (AMS, KS 63844), Deua National Park, Dampier Mountain Fire Trail, 35°59′13″S 149°42′39″E, 11 March 1999, J. Tamawski & S. Lassau; 1♀ (AMS, KS 63823), Durras, 2.5 km WSW, Fire Trail, 35°39′57″S 150°15′57″E, 17 March 1999, (J. Tamawski & S. Lassau; 1♂ (AMS, KS 63840), Durras, 3 km W, Plot Road, 35°38′42″S 150°15′25″E, 17 March 1999, J. Tamawski & S. Lassau; 3♂ (AMS, KS 039539), Boundary Creek State Forest, Grahams Gully, downstream of Boundary Creek Road, 29°58′S 152°34′E, 430 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♂, 1♀ (AMS, KS 039538), Bulga State Forest, Grey Gums Forest Road, 1.1 km from Doyles River Road, 31°33′S 152°00′E, 620 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♀ (AMS, KS 039533), Bulga State Forest, Grey



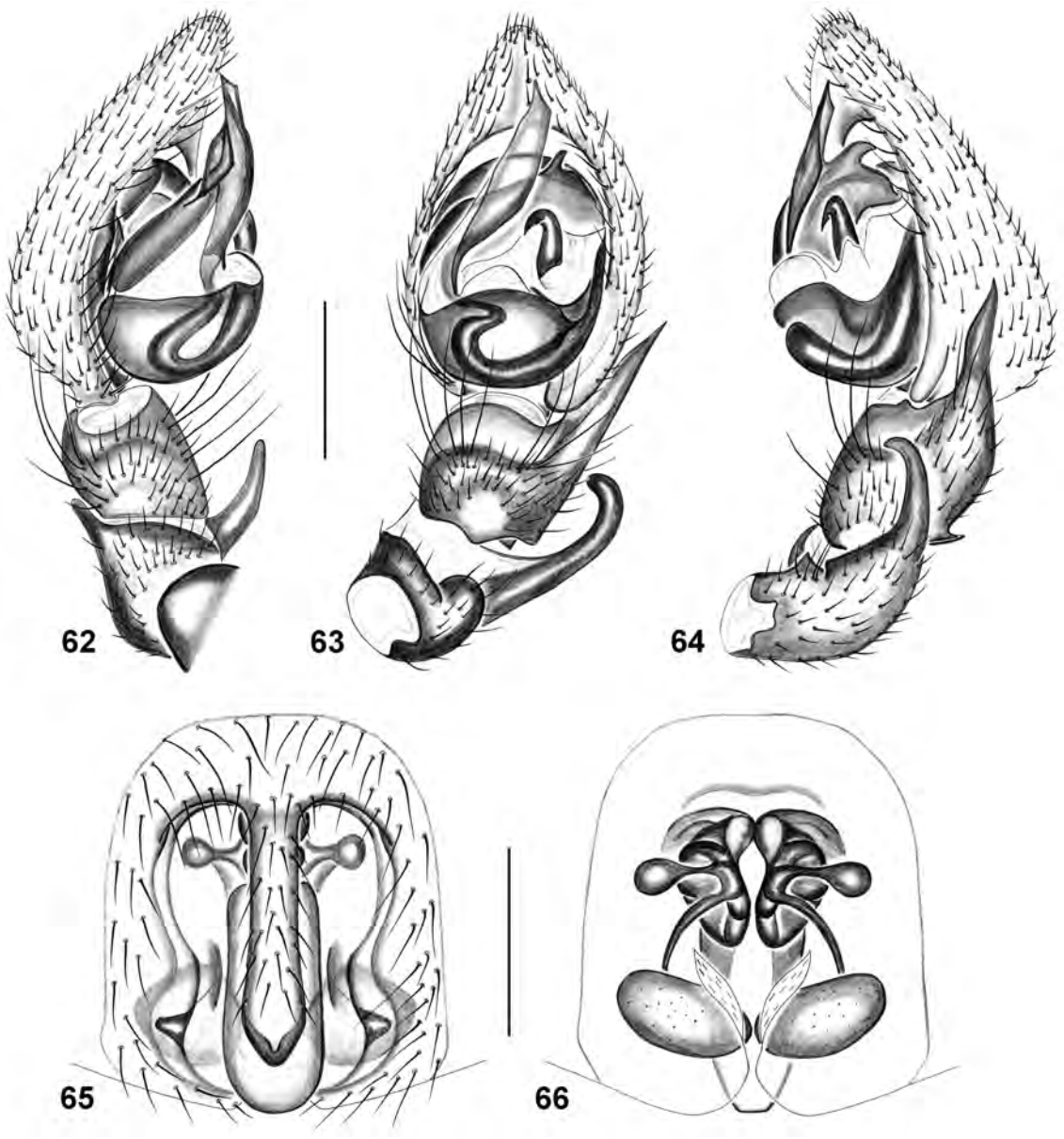
Figs. 51–56: *Avstroneulanda grayi* gen. n. et sp. n., female (51–52) and *A. johnmurphyi* gen. n. et sp. n., male (53–56), copulatory organs. **51** epigyne, ventral view; **52** vulva, dorsal view; **53, 55** right male palp, ventral view; **54, 56** left male palp, retrolateral view.

Gums Forest Road, 2.1 km from Doyles River Road, 31°37′S 152°07′E, 560 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♂ (AMS, KS 039536), Bulga State Forest, Grey Gums Forest Road, 1.2 km up 4 WD track N, 2.1 km from Doyles River Road, 31°32′S 152°14′E, 620 m, 04 February–09 April 1993, M. Gray & G. Cassis; 4♂ (AMS, KS 63842), Bodalla State Forest, Jabarrah Point Walking Trail, 36°05′16″S 150°07′51″E, 09 March 1999, L. Wilkie, R. Harris & H. Smith; 1♂, 2♀ (AMS, KS 63829, KS 63846), Murramarang National Park, Junction of Carls Mountain and North Head Roads, 35°41′09″S 150°15′43″E, 17 March 1999, L. Wilkie, R. Harris & H. Smith; 2♂ (AMS, KS 036396), London Bridge State Forest 163 C, London Bridge Lookout, 3.7 km SW (end of FC survey road of London Bridge Road, overlooking gorge), 29°51′S 152°12′E, 960 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♂, 1♀ (AMS, KS 63825, KS 63838), Deua National Park, Minima Range Fire Trail, 35°59′09″S, 149°39′21″E, 11 March 1999, J. Tamawski & S. Lassau; 1♂ (AMS, KS 036356), Warra State Forest, Moggs Swamp Creek, 2.8 km W, Moggs Swamp Fire Trail, 29°59′S 151°57′E, 1140 m, 1♂ 04 February–09 April 1993, M. Gray & G. Cassis; 1♂ (AMS, KS 63841), Murramarang National Park, North Head Road, 35°40′51″S 150°15′53″E, 17 March 1999, L. Wilkie, R. Harris & H. Smith; 1♀ (AMS, KS 63830), Monga State Forest, Northern Fire Trail, 35°32′09″S 149°53′16″E, 16 March 1999, L. Wilkie, R. Harris & H. Smith; 3♂ (AMS, KS 039537), Bulga State Forest, Padmans Road near intersection of Pole Dump Road, 31°36′S 152°10′E, 730 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♀ (ANIC Berlesate, 660, ANIC), Nerriga, Pigeon House Range, 35°00′S 150°05′E,



Figs. 57–61: *Zelanda erebus* (L. Koch, 1873), copulatory organs. **57** left male palp, prolateral view; **58** same, ventral view; **59** same, retrolateral view; **60** epigyne, ventral view; **61** vulva, dorsal view. Scale bar = 0.5 mm.

litter and moss on sandstone, 25 October 1979, I. Naumann; 1♂ (AMS, KS 63837), Murramarang National Park, Richmond Beach Road, 35°40′55″S, 150°16′55″E, 17 March 1999, L. Wilkie, R. Harris & H. Smith; 1♂, 1♀ (AMS, KS 040601, KS 036401), Spirabo State Forest, Saddle along ridge with steep drop to the S and a shallow basin to the N, 29°18′S 152°00′E, 920 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♂ (AMS, KS 039534), Nerong State Forest, Sharpers Creek, Boundary Road, N of Sharpers Road, 32°31′S 152°07′E, 30 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♂ (AMS, KS 039540), Boundary Creek State Forest, Sheas Nob Road from Boundary Creek Road, 1.9 km W, 29°59′S 152°34′E, 550 m, 04 February–09 April 1993, M. Gray & G. Cassis; 1♂ (AMS, KS 036343), Boonoo State Forest, Timbarra Trig [Trail], 28°56′S 152°08′E, 1130 m, 04 February–09 April 1993, M. Gray & G. Cassis; 2♂, 1♀ (AMS, KS 63824, KS 63848), Monga State Forest, Turtle Creek Fire Trail, 35°38′20″S 149°55′55″E, 15 March 1999, L. Wilkie, R. Harris & H. Smith; 1♂, 1♀ (AMS, KS 63826, KS 63839), Badja State Forest, Woila Creek Fire Trail, 36°05′56″S 149°35′09″E, 13 March 1999, J. Tamawski & S. Lassau; 1♂ (AMS, KS 1264), pitfall FN. 881, M. Gray. Queensland: 1♂ (QMB, S 19572), Beerwah Forestry Reserve, 26°51′S 152°57′E, heath, pitfall, 18 July 1990, M. Glover; 1♂, 4♀ (QMB, S 32309, S 32312, S 32322, S 32342, S 32350), Beerwah Forestry Reserve, 26°51′S 152°57′E, heath, pitfall, 10, 31 October, 21 November 1990, 24 April, 25 August 1991, M. Glover; 1♀ (QMB, S 27936), Benarkin School, 26°53′S 152°09′E, open forest, pitfall, 14 November–26 January 1995, G. Monteith; 1♂ (QMB, S 30412), Ewen Maddock Dam, 26°48′S 152°59′E, old homesite, pitfall, 14 March–25 July, 1993, M. Glover; 1♂, 1♀ (QMB, S 32404), Ewen Maddock Dam, 26°48′S 152°59′E, heath, pitfall, 14 March–18 July 1993, M. Glover; 1♂ (QMB, S 32405), Ewen Maddock Dam, 26°48′S 152°59′E, old homesite, pitfall, 14 March–18 July 1993, M. Glover; 1♀ (QMB, S 32436), Ewen Maddock Dam, 26°48′S 152°59′E, open forest, pitfall, site B, 03 May–22 August 1993, M. Glover; 1♀ (QMB, S 32480), Ewen Maddock Dam, 26°48′S 152°59′E, heath,



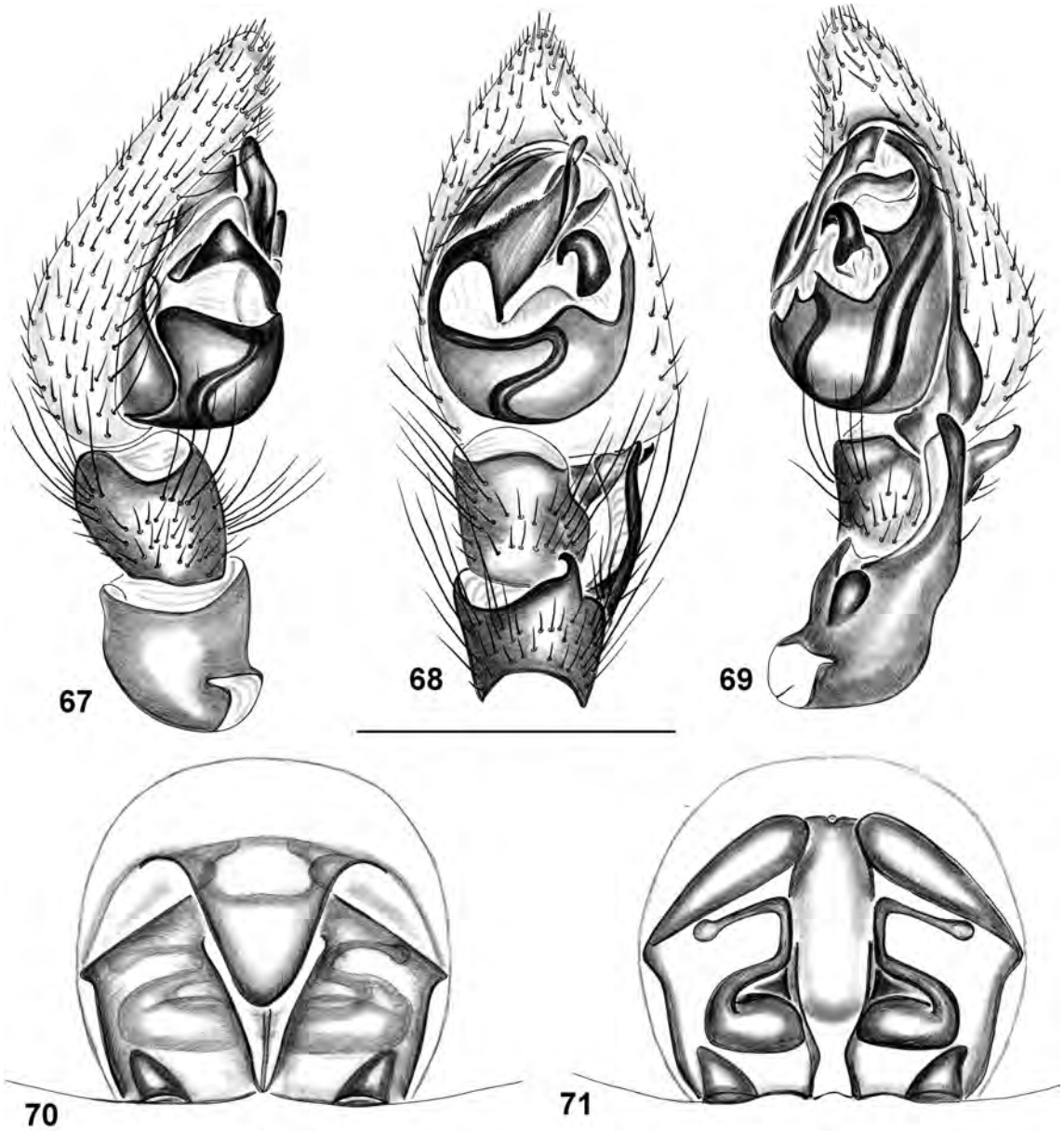
Figs. 62–66: *Zelanda elongata* (Forster, 1979), copulatory organs. **62** left male palp, prolateral view; **63** same, ventral view; **64** same, retrolateral view; **65** epigyne, ventral view; **66** vulva, dorsal view. Scale bar = 0.5 mm.

pitfall, July, 1993, M. Glover; 2♂ (QMB, S 26813, S 26555), Brisbane, Rochedale State Forest, 27°28′S 153°01′E, litter, 16 April–04 September 1980, V. Davies & R. Raven; 1♀ (QMB, S 26979), Bunya, Marlaybrook, 27°22′S 152°00′E, litter, 02 March 1976, R. Raven, V. E. Davies. Victoria: 1♀ (CVIC 763), "Alunga" Muckleford State Forest, 37°03′S 144°04.5′E, vibration, 01 April 2000, D. Shield, J. Shield, A. Bull; 1♂, 2♀ (NMV, DU 958155), Avon River near Valencia Creek, 37°48′29″S 146°57′11″E, gravel bank, adjacent woodland, pitfall, 10–23 April, 07–21 May 1997, V. Framenau; 1♀ (NMV, DU 958155), Avon River near Valencia Creek, 37°48′29″S 146°57′11″E, gravel bank '5', pitfall 15, 12–28 February 1997, V. Framenau; 1♂, 1♀ (NMV), Barmah, 7 km SE, Lower Moira, 36°04′S 145°00′E, 10–17 April 1994, pitfall, G. Milledge & P. Lillywhite; 1♀ (NMV, K-4586), Barmah, 7 km SSE, Deep Creek, 36°05′S 139°59′E, remnant woodland study, pitfall, 18–23 July 1994, G. Milledge, S. Hinkley & P. Lillywhite; 1♀ (ANIC Berlesate, 888, ANIC), Halls Gap, 11 km WNW, 37°07′S 142°24′E, 21 October 1983, eucalypt litter, I. Naumann & J. Cardale; 1♂ (NMV), Yambuna, 1 km SE, 36°09′S 145°01′E, remnant woodland study, pitfall, 10–17 April 1994, P. Lillywhite & G. Milledge.

Etymology: The specific name is a patronym honouring Dr Michael Gray of the Australian Museum, one of the collectors of this species and many other interesting gnaphosid specimens.

Diagnosis: Members of this species can be easily separated from those of the other known *Avstroneulanda* species by the presence of long and narrow retrolateral tibial apophysis of males that almost reach the top of the cymbium (Figs. 87–88), and the long, narrow scapus of the female epigyne, and a deep atrium with distinctive posterolateral pockets (Fig. 89).

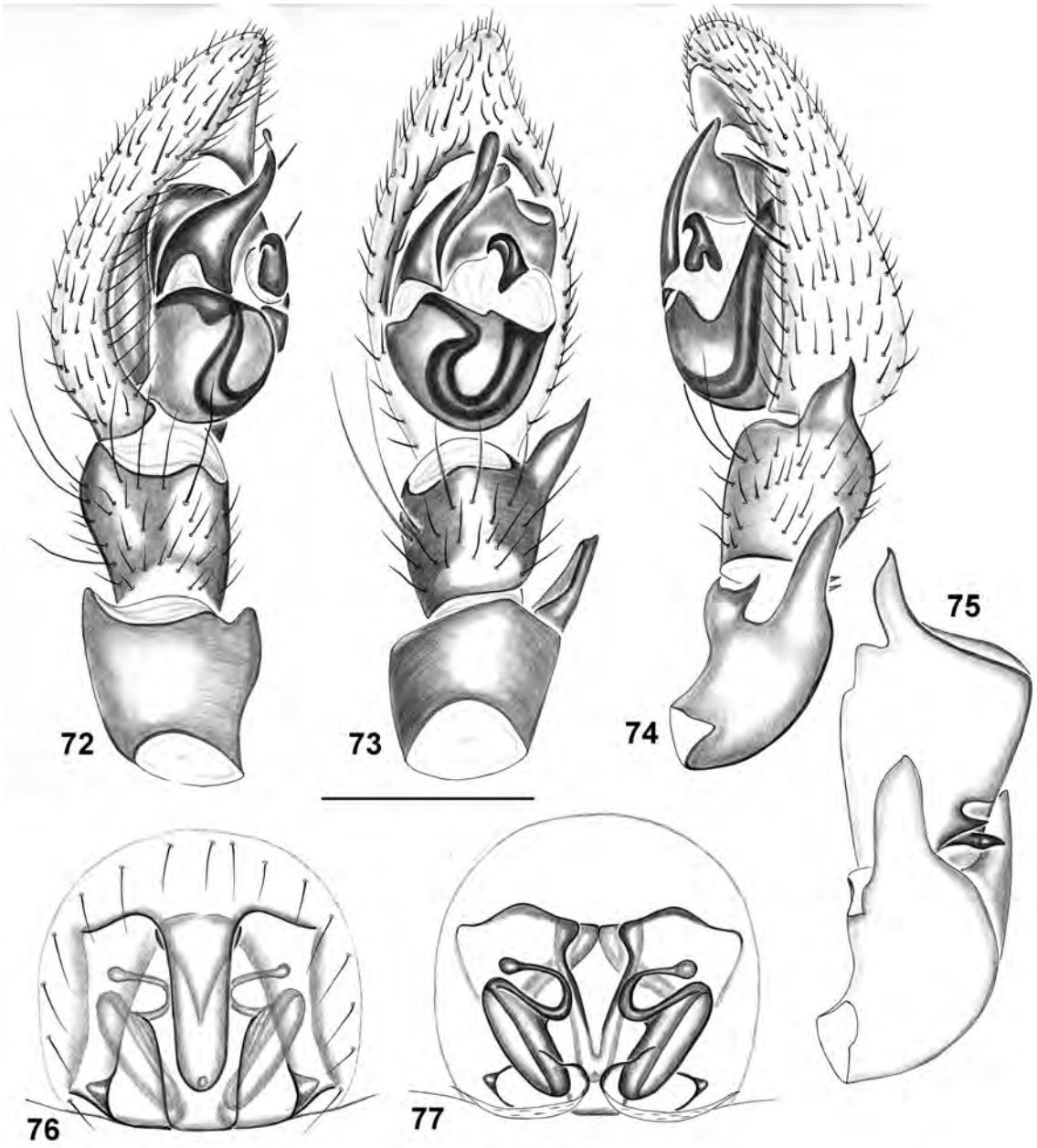
Distribution: Eastern Australia.



Figs. 67–71: *Zelanda kaituna* (Forster, 1979), copulatory organs. **67** left male palp, prolateral view; **68** same, ventral view; **69** same, retrolateral view; **70** epigyne, ventral view; **71** vulva, dorsal view. Scale bar = 0.5 mm.

Description of holotype male: Total length 5.30. Carapace 1.93 long, 1.47 wide. Femur II 1.40 long. Carapace yellow; abdomen grey yellow with reddish anterior triangular spot; legs yellow brown. Eye sizes and interdistances: AME 0.12, ALE 0.13, PME 0.13, PLE 0.11, AME-AME 0.04, AME-ALE 0.02, PME-PME 0.00, PME-PLE 0.06, ALE-PLE 0.03; MOQ length 0.33, front width 0.23, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3, IV d1-1-3; patella: p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-0; III p0-1-1, r0-1-1; v1-2-2; IV d0-1-0, p1-0-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-2-0, p0-0-1, r0-0-1, v1-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Retrolateral tibial apophysis long, narrow, dorsal side of tibia with short spur posteriorly (Fig. 88), patella with long and flat on tip apophysis (Figs. 87–88).

Description of paratype female: Total length 4.90. Carapace 1.83 long, 1.33 wide. Femur II 1.20 long. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.11, PLE 0.10, AME-AME 0.04, AME-ALE 0.03, PME-PME 0.00, PME-PLE 0.04, ALE-PLE 0.06; MOQ length 0.27, front width 0.19, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-1; III p0-1-1, r0-1-1, v1-1-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-0-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with long, narrow scapus, atrium deep, elongated, with distinctive posterolateral pockets, openings small, situated posteriorly near midline (Fig. 89); spermathecae small, round, posteriorly located (Fig. 90).



Figs. 72–77: *Zelanda obtusa* (Forster, 1979), copulatory organs. **72** left male palp, prolateral view; **73** same, ventral view; **74** same, retrolateral view; **75** male palp tibia with spur, retrolateral view; **76** epigyne, ventral view; **77** vulva, dorsal view. Scale bar = 0.5 mm.

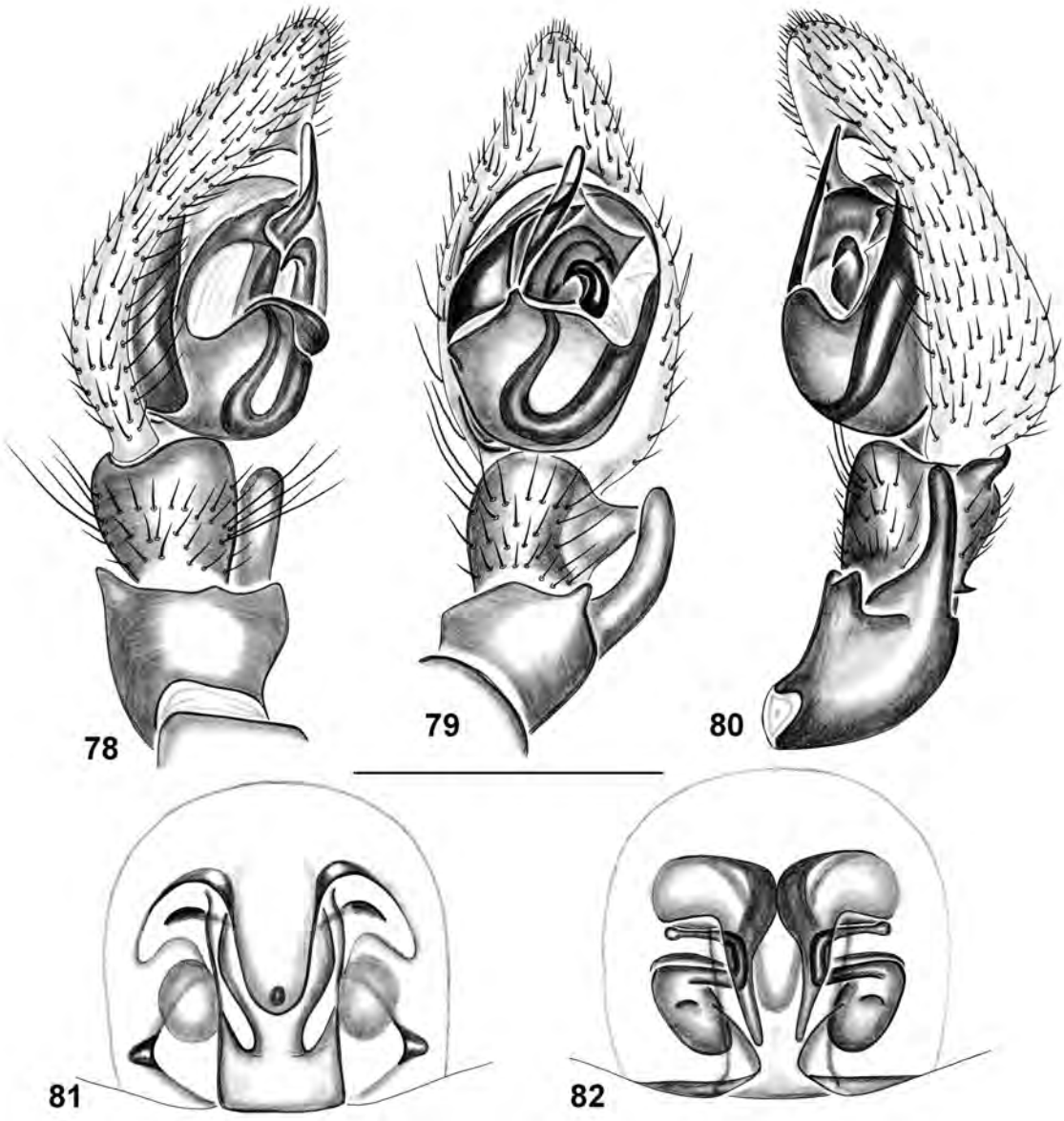
***Avstroneulanda robertsi* gen. n. et sp. n.** (Figs. 91–95, 154–156, 189–190)

Types: Holotype ♂ (WAM, T49609), AUSTRALIA: Western Australia, Gull Rock National Park, Ledge Point, 35°01′S, 118°00′E, 17–20 March 1985, W. F. Humphreys. Paratype: 1♀ (WAM, T49600), together with the holotype.

Other material: AUSTRALIA: South Australia: 2♂ (SAM), Mount Lofty Ranges, Loftia Park, 35°02′S 138°42′E, pitfall, 20–27 March 1990, D. Hirst. Tasmania: 1♂ (AMS, KS 29246), Arthur River, 41°06′S 144°51′E, under a stone, 30 December 1939, V. Hickman; 1♂ (AMS, KS 29347), Domain, 42°51′S 147°19′E, grass tussock, March 1968, V. Hickman; 1♀ (TMAG), Hobart, Lindisfarne, 42°52′S 147°19′E, under she-oak needles, 06 June 1974, R. Mesibov; 1♂, 1♀ (QVMAG), Launceston, 87-0653. Victoria: 1♂, 1 juv. (QMB, S 26721), Cape Schanck, 38°28′S 144°53′E, 28 May 1978, V. Salanitri; 1♂, 2 juv. (QMB, S 26747), Cape Schanck, 38°28′S 144°53′E, 16 April 1978; 1♂ (HMV), Point Cook, 100 m E of Recreation Beach area, Melbourne Western Region Survey, 37°56'S 144°45'E, upper edge sand dune, pitfall, 17–24 July 1992, B. Van Praagh, P. Lillywhite & P. Barden; 1♂ (HMV, 652), Upper Lurg, 36°35′S 146°10′E, ex house early morning, 12 March 1996, J. Strudwick. Western Australia: 1♂ (WAM), Bluff Knoll, Stirling Range National Park, 34°22′36″S 118°15′10″E, 1070 m, 21 March 1995, S. Barrett.

Etymology: The specific name is a patronym in the honour of the late Michael Roberts (1945–2020), a British artist, arachnologist, and illustrator of the monograph *Gnaphosid Genera of the World* (Murphy 2007).

Diagnosis: The males resemble those of *A. johnmurphyi* gen. n. et sp. n., but can be distinguished by the narrow,



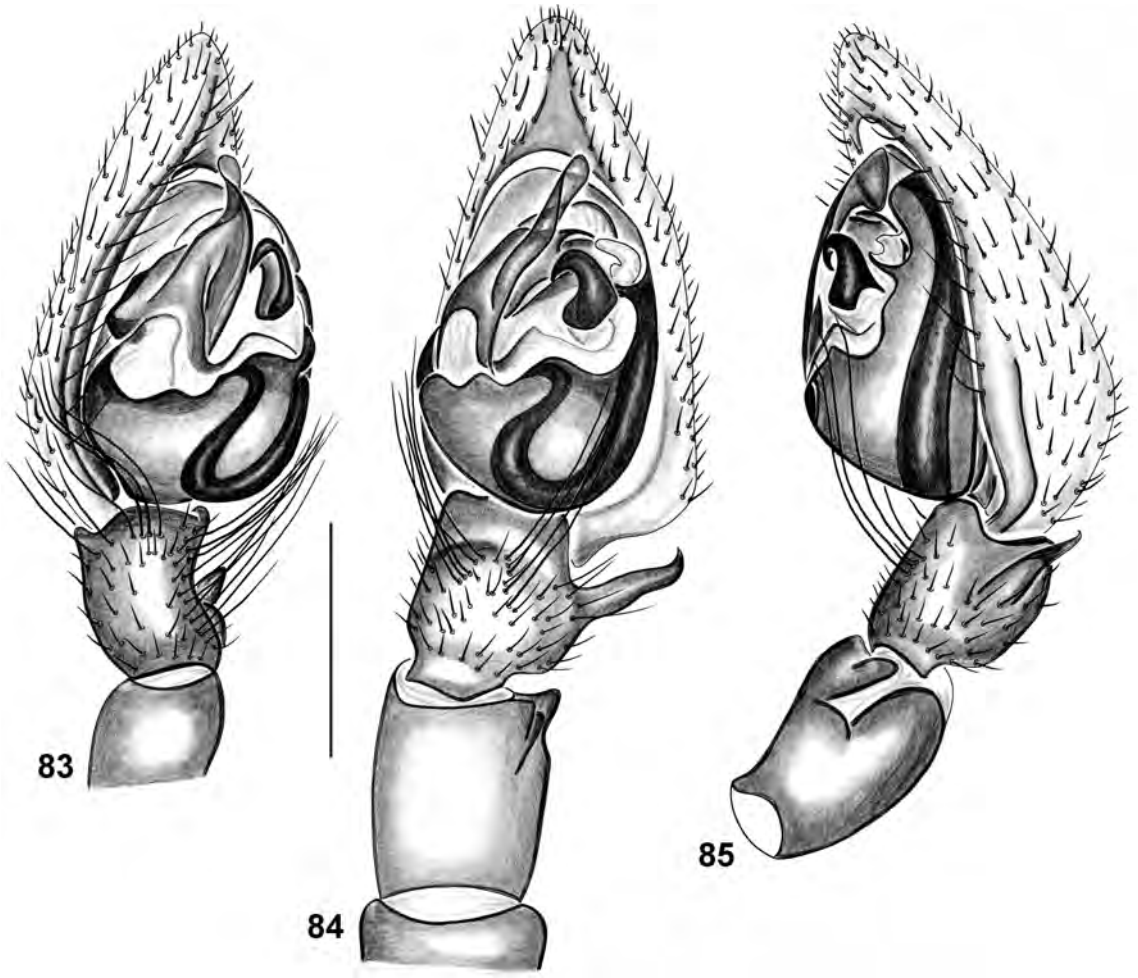
Figs. 78–82: *Zelanda miranda* (Forster, 1979), copulatory organs. **78** left male palp, prolateral view; **79** same, ventral view; **80** same, retrolateral view; **81** epigyne, ventral view; **82** vulva, dorsal view. Scale bar = 0.5 mm.

elongated median apophysis and the extended, triangle retrolateral tibial apophysis (Fig. 93); the females can be separated by the short, narrowing on tip scapus and a deep atrium with shallow posterolateral pockets (Fig. 94).

Distribution: Western Australia, south-eastern Australia and Tasmania.

Description of holotype male: Total length 4.50. Carapace 1.78 long, 1.30 wide. Femur II 1.07 long. Carapace yellow; abdomen grey yellow with reddish anterior triangular spot; legs yellow brown. Eye sizes and interdistances: AME 0.10, ALE 0.10, PME 0.15, PLE 0.10, AME-AME 0.05, AME-ALE 0.01, PME-PME 0.02, PME-PLE 0.01, ALE-PLE 0.03; MOQ length 0.30, front width 0.21, back width 0.23. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-1, p0-1-1, r0-0-1; IV d0-1-1, p0-0-1, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-2-0; II v1-2-1; III p0-1-1, r0-1-1; v1-1-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III p1-2-2, r1-2-2, v2-0-2; IV p1-2-2, r1-2-2, v2-2-2. Retrolateral tibial apophysis extended, triangle, robust (Fig. 93), median apophysis elongated, narrow, distinctively hooked on the tip, the dorsal spur situated on proximal part of tibia; patella with long, strongly curved apophysis (Figs. 92–93).

Description of paratype female: Total length 5.55. Carapace 1.75 long, 1.20 wide. Femur II 1.00 long. Eye sizes and interdistances: AME 0.13, ALE 0.11, PME 0.11, PLE 0.08, AME-AME 0.01, AME-ALE 0.01, PME-PME 0.01, PME-PLE 0.03, ALE-PLE 0.06; MOQ length 0.28, front width 0.21, back width 0.22. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-1; III p0-1-1, r0-1-1, v1-1-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-0-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with short, narrowing on tip scapus, the atrium deep, wide anteriorly and narrowing posteriorly with parallel margins, pos-



Figs. 83–85: *Zelanda titirangia*, Ovtsharenko, Fedoryak & Zakharov, 2006, copulatory organs. **83** left male palp, prolateral view; **84** same, ventral view; **85** same, retrolateral view. Scale bar = 0.5 mm.

terolateral pockets shallow, not distinctive, located in the middle part of margins (Fig. 94); spermathecae oval, widely spaced, situated laterally and posteriorly (Fig. 95).

***Avstroneulanda julianneae* gen. n. et sp. n.** (Figs. 3, 5, 96–100, 157–159, 191–192)

Types: Holotype ♂ (WAM, T49601), AUSTRALIA: Western Australia, Goongarrie Station, 29°58′19.1″S 121°03′41.2″E, dry pitfall, 01–05 May 1996, P. West *et al*. Paratype: 1♀ (WAM, T49602),

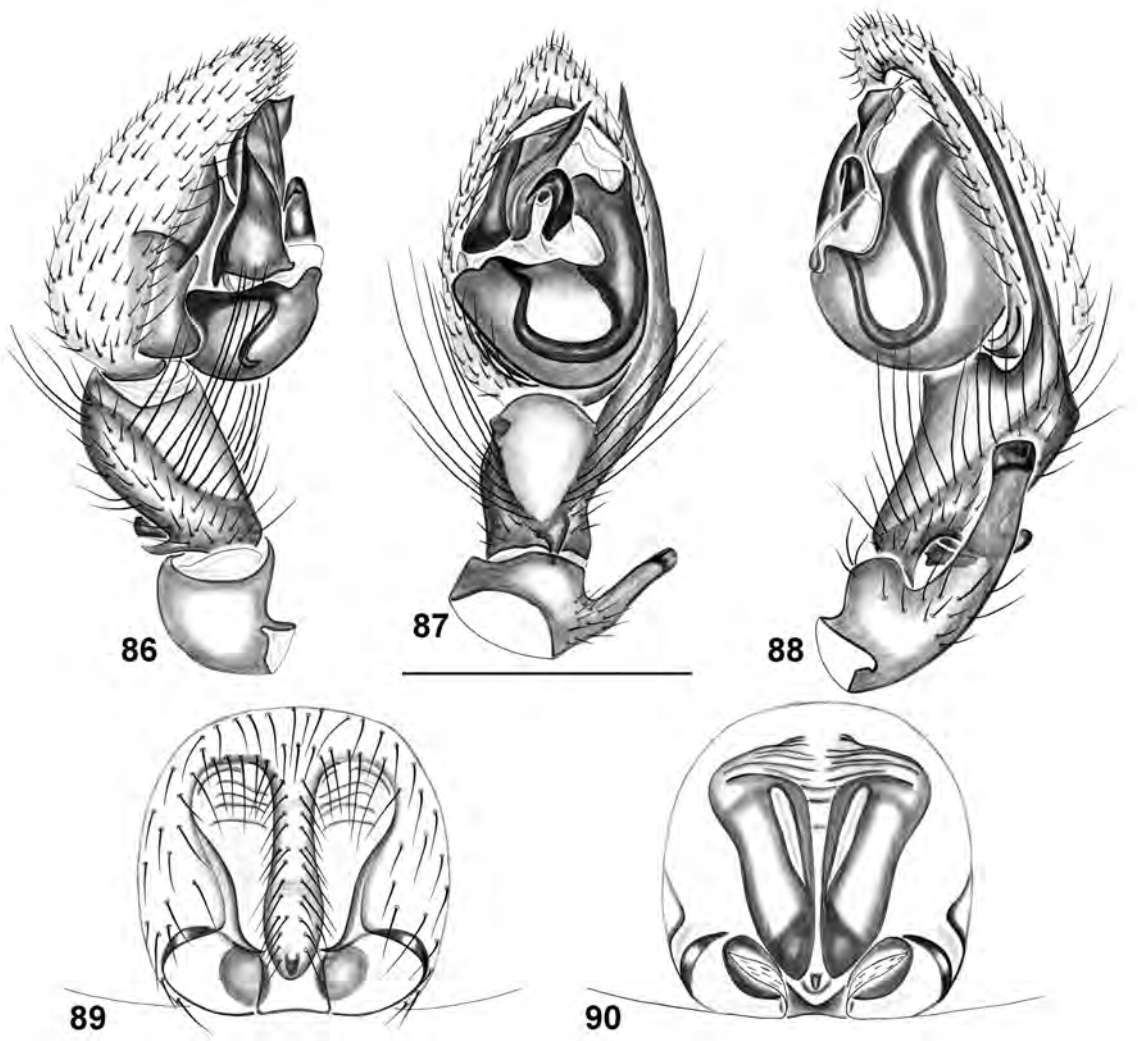
Other material: AUSTRALIA: Western Australia: 1♂ (WAM), Barlee Range Nature Reserve, 23°22′16″S 115°52′50″E, dry pitfall, 11–14 June 1994, P. Kendrick & G. Kendrick; 1♂ (WAM), Barlee Range Nature Reserve, 23°22′31″S 115°52′57″E, wet pitfall, June 1994, S. van Leeuwen & B. Bromilow; 1♂ (WAM), Bringo Cutting, 28°45′S 114°50′E, 20 April 1996, J. Waldock; 1♀ (WAM), Cape Range, 22°09′21″S 113°59′27″E, outside entrance to cave C-118, pitfall traps, CR′89#27612, September 1989, B. Jones, W. Humphreys & A. Humphreys; 1♂ (WAM), Useless Loop Road, 1 km from Denham Road, 26°32′S 113°31′E, in litter, 05 May 1990, A. Longbottom.

Etymology: The specific name is a matronym honouring Ms Julianne Waldock of the Western Australian Museum, one of the collectors of this species and many other important gnaphosid specimens.

Diagnosis: The males can be recognized by the narrow median apophysis, narrow embolus, long, narrow and the sharply pointed retrolateral tibial apophysis, the dorsal spur on proximal part of tibia and the narrow and slender patellar apophysis (Figs. 97–98), the females by the long, club-shaped scapus, and the round atrium of the epigyne with distinctive posterolateral pockets (Fig. 99).

Distribution: Northern Western Australia.

Description of holotype male: Total length 5.90. Carapace 2.95 long, 2.05 wide. Femur II 2.03 long. Carapace yellow; abdomen grey yellow with red anterior triangular spot; legs yellow brown. Eye sizes and interdistances: AME 0.13, ALE 0.16, PME 0.19, PLE 0.14, AME-AME 0.05, AME-ALE 0.02, PME-PME 0.01, PME-PLE 0.04, ALE-PLE 0.03; MOQ length 0.43, front width 0.30, back width 0.32. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-1, p0-1-1, r0-1-1; IV d1-1-1, p0-0-1, r0-0-1; patella: III d0-0-1, p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v2-2-0; II v2-2-1; III p0-1-1, v2-2-2; r0-1-1; IV d0-1-0, p1-1-0, v2-2-2, r1-1-0; metatarsus: I v2-0-0; II v2-0-0; III p1-1-2, v0-2-2, r1-2-2; IV p1-2-2, v2-2-2, r1-2-2. Median



Figs. 86–90: *Avstroneulanda grayi* gen. n. et sp. n., copulatory organs. **86** left male palp, prolateral view; **87** same, ventral view; **88** same, retrolateral view; **89** epigyne, ventral view; **90** vulva, dorsal view. Scale bar = 0.5 mm.

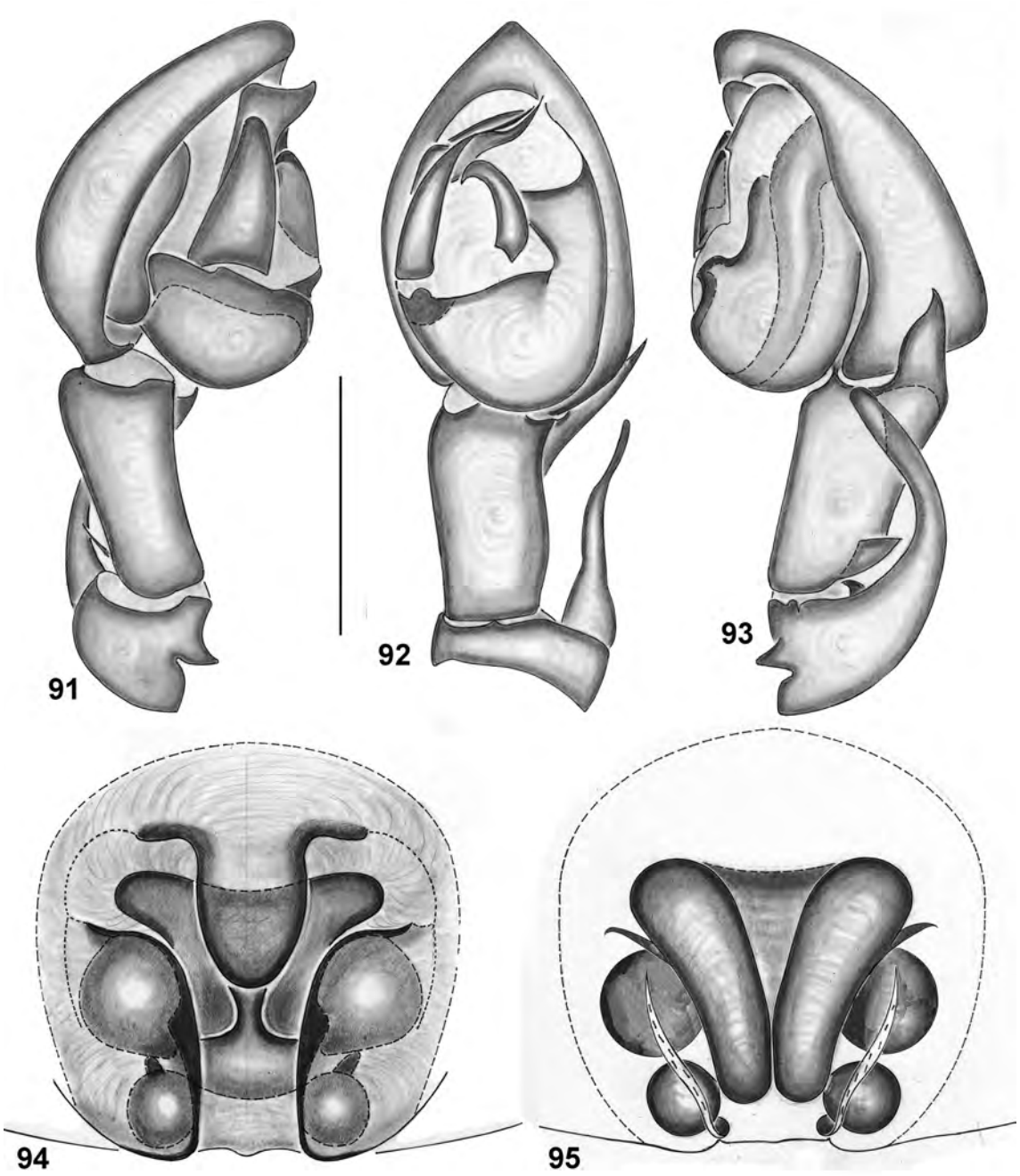
apophysis and embolus narrow, retrolateral tibial apophysis long, narrow and sharply pointed, the dorsal spur situated on proximal part of tibia (Fig. 98); patellar apophysis narrow and slender (Fig. 97).

Description of paratype female: Total length 5.80. Carapace 2.05 long, 1.40 wide. Femur II 1.23 long. Eye sizes and interdistances: AME 0.10, ALE 0.13, PME 0.16, PLE 0.11, AME-AME 0.03, AME-ALE 0.01, PME-PME 0.01, PME-PLE 0.02, ALE-PLE 0.06; MOQ length 0.34, front width 0.26, back width 0.27. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-1, p0-1-1, r0-1-1; IV d1-1-1, p0-1-1, r0-1-1; patella: III d0-0-1, p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-0; III p0-1-1, v1-1-2, r0-1-1; IV d0-1-0, p0-1-1, v1-2-2, r0-1-1; metatarsus: I v2-0-0; II v2-0-0; III p1-2-2, v0-2-2, r1-2-2; IV p1-2-2, v2-2-2, r1-2-2. Epigyne with long, club shaped scapus, round atrium with distinctive posterolateral pockets, openings wide, situated posteriorly almost in center of atrium (Fig. 99); spermathecae large, oval posteriorly spaced (Fig. 100).

***Avstroneulanda johnmurphyi* gen. n. et sp. n.** (Figs. 27, 29–37, 39, 43, 53–56, 101–105, 160–162, 193–194)

Types: Holotype ♂ (WAM, T49603), AUSTRALIA: Western Australia, Woodman Point, 32°07′50″S 115°45′28″E, wet pitfall, 04 May–06 July 1995, J. Waldock & M. Harvey. Paratype: 1♀ (WAM, T49604), together with the holotype.

Other material: AUSTRALIA: New South Wales: 3♀, 7 juv. (ANIC), Trangie, 32°01′S 147°58′E, dry sclerophyll, leaf litter, 08 March 1968, Mound. Queensland: 13♂, 2♀, 2 juv. (QMB, S 28614, S 28630, S 28595, S 28649, S 28600, S 28615), Lake Broadwater via Dalby, 27°21'S, 151°06'E, pitfall, 25 March–06 May 1985, 16 May–23 November 1985, 17 May–24 November 1985, 25 February–22 April 1986, 22 April–12 June 1986, M. Bennie. South Australia: 1♂ (ANIC), Calperum Station/Bookmark Biosphere Reserve, Invertebrate Survey, 19 km N Renmark, 34°00′S 140°47′E, Chenopod shrubland, pitfall, 10–21 August 1995, A. Lambie; 1♂ (SAM, NN 9449), Ngarkat Conservation Park, 5 km N of south boundary, 35°45′31″S 140°47′48″E, pitfall, 22 April–18 June 1999, D. Hirst. Western Australia: 1♂ (WAM), Boranup Forest, 34°15′S, 115°02′E, tree traps,



Figs. 91–95: *Avstroneulanda robertsi* gen. n. et sp. n., copulatory organs. **91** left male palp, prolateral view; **92** same, ventral view; **93** same, retrolateral view; **94** epigyne, ventral view; **95** vulva, dorsal view. Scale bar = 0.25 mm.

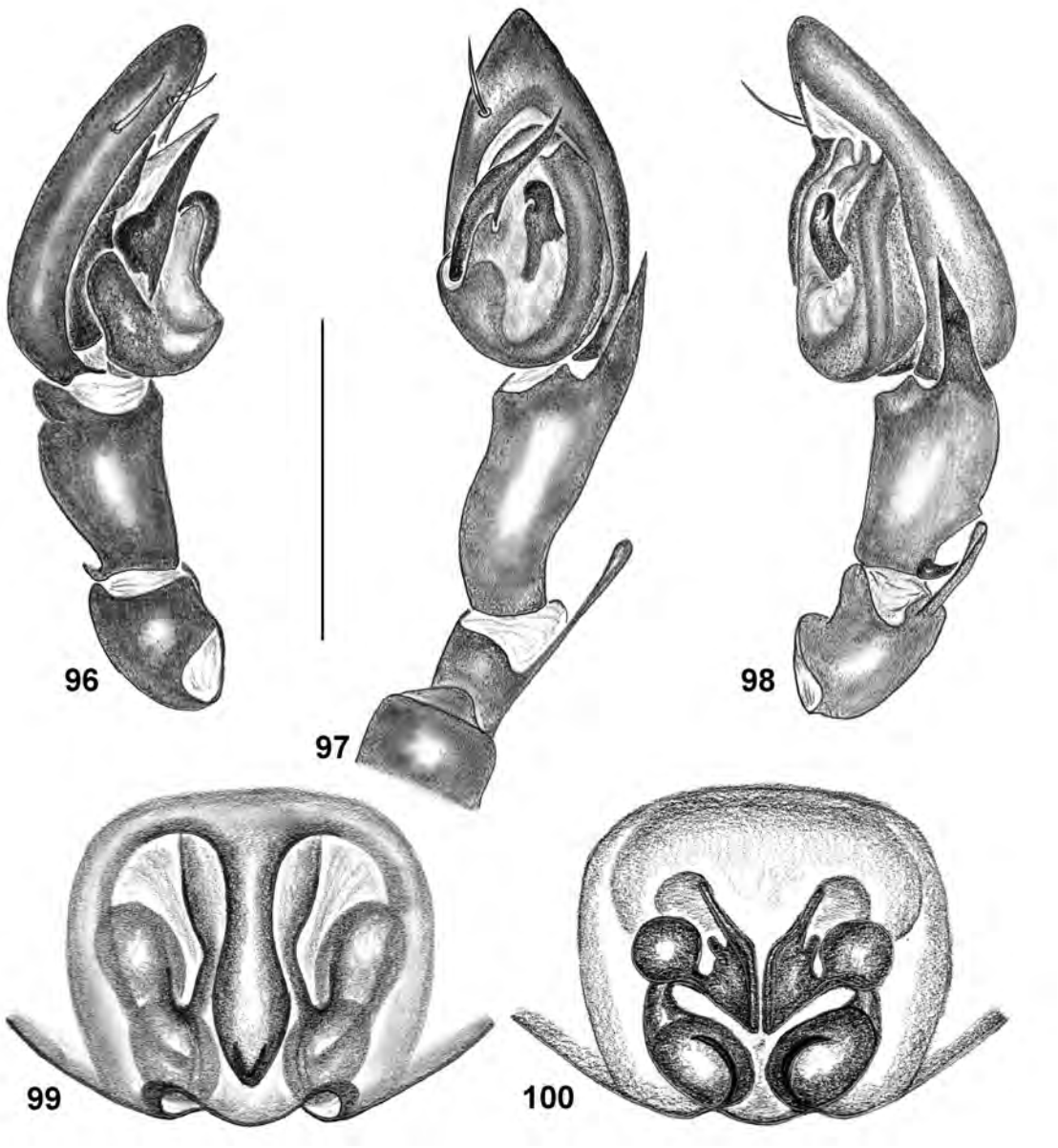
03 August 1978, S. Curry; 2♂, 1 juv. (AMS, KS 15056), Gleneagle State Forest, 32°16′S 116°09′E, pitfall, M. Gray; 1♂, 2♀ (WAM), Hepburn Heights, site HH 4, 31°48′57″S 115°46′41″E, pitfall, 13 July–25 September 1995, M. Harvey & J. Waldock; 2♂, 1♀ (WAM), Mt Henry, site MH 2, 32°01′58″S, 115°51′38″E, pitfall, 04 May–06 July 1995, J. Waldock & M. Harvey; 9♂, 2♀ (1♂ and 1♀ from this sample were taken as types) (WAM), Woodman Point, site WO 1, 32°07′47″S 115°45′23″E, wet pitfall, 28 June–01 September 1994, 21 March–04 May 1995, 04 May–06 July 1995, J. Waldock & M. Harvey; 6♂, 6♀ (WAM), Woodman Point, site WO 2, 32°07′50″S 115°45′28″E, pitfall, 01 June–01 September 1994, J. Waldock & A. Longbottom.

Etymology: The specific name is a patronym honouring the late British arachnologist, John Murphy (1922–2021), the author of the monograph *Gnaphosid Genera of the World* (Murphy 2007).

Diagnosis: Males can easily be recognized by the distinctive enlarged median apophysis and the small, almost triangular retrolateral tibial apophysis, sharply pointed at the tip (Fig. 103), and females by the short, wide scapus, and the long, narrow atrium of the epigyne (Fig. 104).

Distribution: South-eastern and southern Australia.

Description of holotype male: Total length 5.30. Carapace 1.93 long, 1.47 wide. Femur II 1.40 long. Carapace brown yellow; abdomen grey yellow with brown anterior triangular spot and two pairs of sigilla; legs yellow brown.



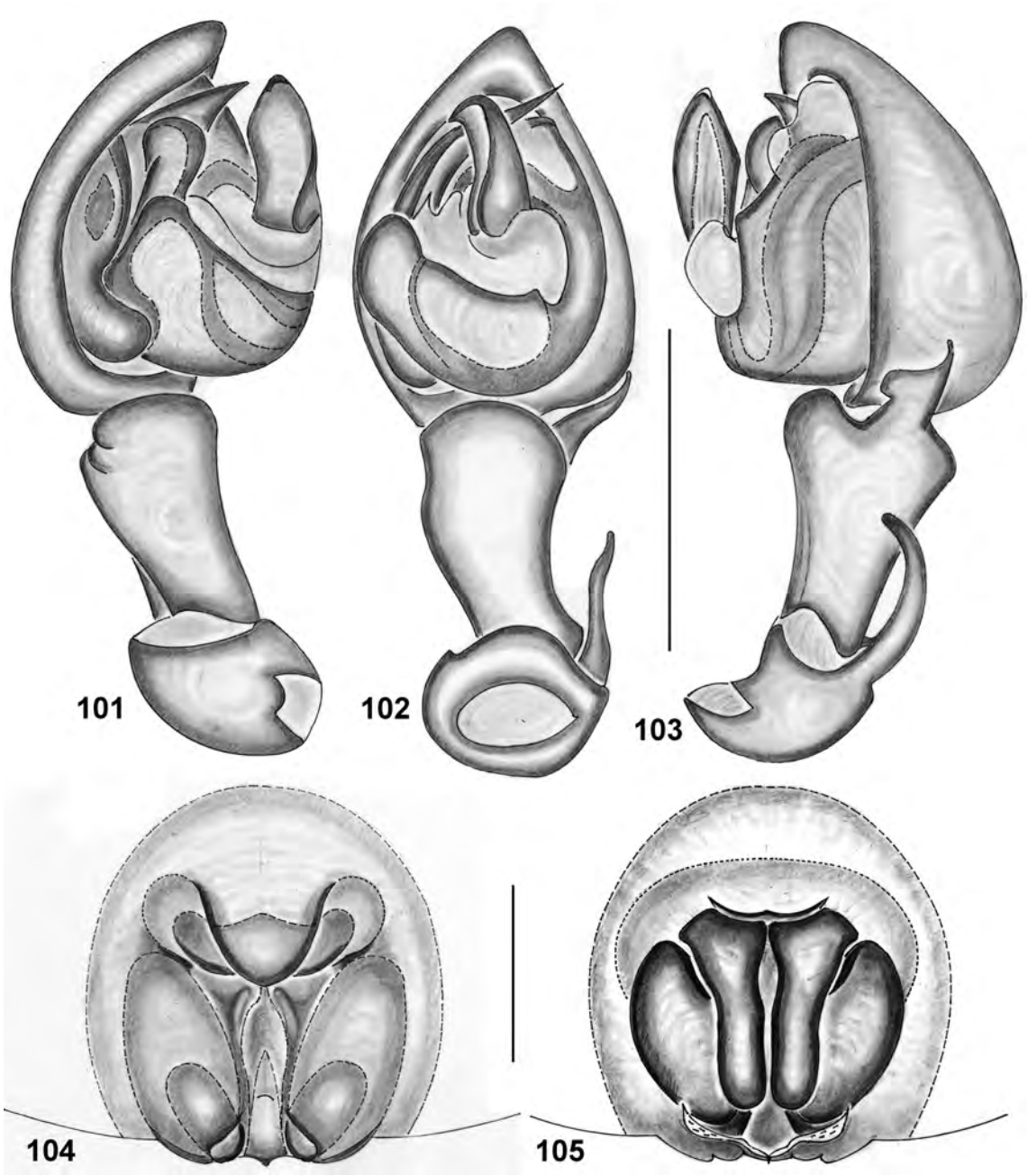
Figs. 96–100: *Avstroneulanda julianneae* gen. n. et sp. n., copulatory organs. **96** left male palp, prolateral view; **97** same, ventral view; **98** same, retrolateral view; **99** epigyne, ventral view; **100** vulva, dorsal view. Scale bar = 0.5 mm.

Eye sizes and interdistances: AME 0.12, ALE 0.13, PME 0.13, PLE 0.11, AME-AME 0.04, AME-ALE 0.02, PME-PME 0.00, PME-PLE 0.06, ALE-PLE 0.03; MOQ length 0.33, front width 0.23, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-0, p0-0-1, r0-0-1; IV d1-1-0, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: II d0-1-0, v0-1-0; III p0-1-1, v1-1-2, r0-1-1; IV d0-1-0, p0-1-1, v1-2-2, r0-1-1; metatarsus: I v0-1-0; II v0-2-0; III p0-2-2, v0-2-2, r0-2-2; IV p2-1-2, v1-2-2, r1-2-2. Retrolateral tibial apophysis small, longer dorsally than ventrally, sharply pointed (Fig. 103), median apophysis extremely large, massive, patella with long, curved, narrowing on tip apophysis (Figs. 101–102).

Description of paratype female: Total length 4.90. Carapace 1.83 long, 1.33 wide. Femur II 1.20 long. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.11, PLE 0.10, AME-AME 0.04, AME-ALE 0.03, PME-PME 0.00, PME-PLE 0.04, ALE-PLE 0.06; MOQ length 0.27, front width 0.19, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-1, p0-0-1, r0-0-1; IV d1-1-0, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: II v0-1-0; III p0-1-1, r0-1-1, v1-1-2; IV d0-1-0, p0-1-1, v1-2-2, r0-1-1; metatarsus: II v0-2-0; III d0-1-0, p0-1-2, v0-1-2, r0-1-2; IV p2-1-2, v1-2-2, r1-2-2. Epigyne with short, wide scapus, the atrium deep, wide anteriorly and narrowing posteriorly, with closely spaced distinctive posterolateral pockets (Fig. 104); spermathecae very large, oval, occupied entire lateral sides (Fig. 105).

***Avstroneulanda joyae* gen. n. et sp. n.** (Figs. 106–108, 163–165)

Type: Holotype ♂ (WAM, T49605), AUSTRALIA: Western Australia, Bushmead, Ridge Hill Road, site BM 2,



Figs. 101–105: *Avstroneulanda johnmurphyi* gen. n. et sp. n., copulatory organs. **101** left male palp, prolateral view; **102** same, ventral view; **103** same, retrolateral view; **104** epigyne, ventral view; **105** vulva, dorsal view. Scale bar = 0.5 mm.

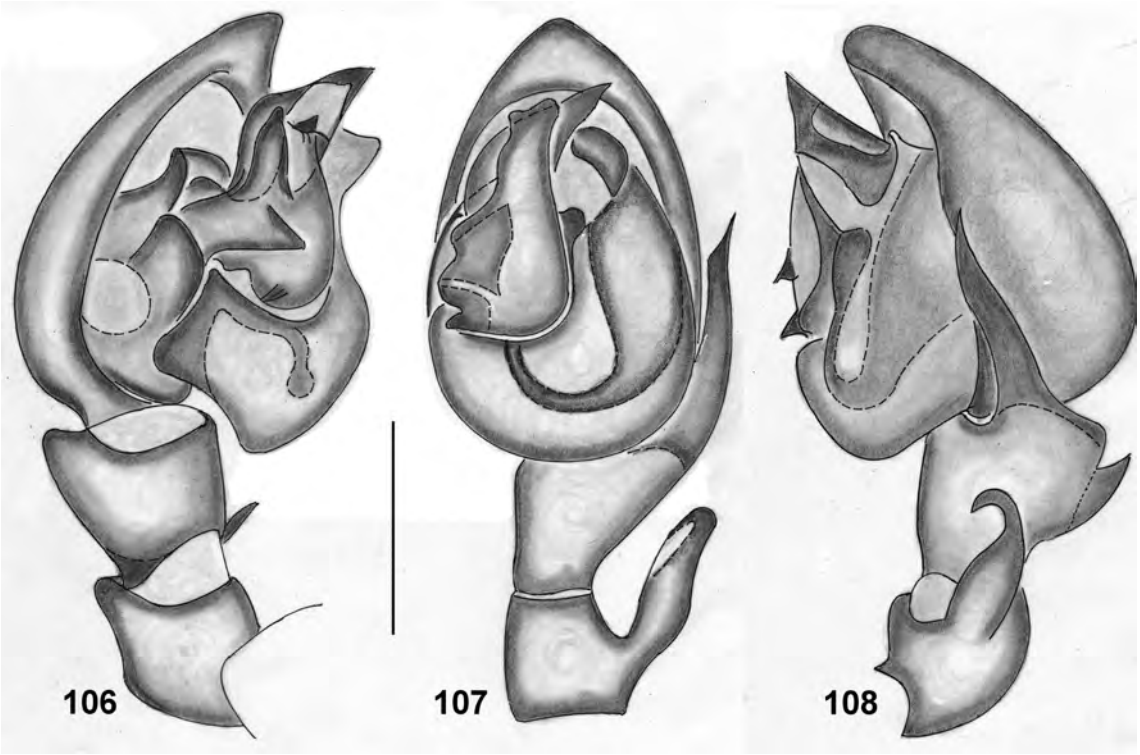
31°00′56″S 116°02′22″E, wet pitfall trap, 16 April–17 June 1996, J. Waldock, P. West, A. Longbottom.

Etymology: This species has been named in the honour of Joy Longbottom, the wife of the collector Alan Longbottom, in recognition of her invaluable assistance with collecting specimens for the Western Australian Museum and being a very generous host during a visit of our expedition team.

Diagnosis: the males can be recognized by the very small median apophysis, the enlarged base of embolus, strong dorsal tooth on the tibia, hooked on tip patellar apophysis (Figs. 107–108). Females are unknown.

Distribution: Southern Western Australia.

Description of holotype male: Total length 3.15. Carapace 1.20 long, 0.90 wide. Femur II 0.80 long. Carapace yellow brown; abdomen light brown, covered with dark brown spines, shiny brown anterior triangular spot; legs yellow brown with dark brown spines. Eye sizes and interdistances: AME 0.10, ALE 0.09, PME 0.11, PLE 0.10, AME-AME 0.03, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.02, ALE-PLE 0.01; MOQ length 0.26, front width 0.20, back width 0.19. Leg spination: femora: I d1-1-0; II d1-1-0; III d1-1-0, p0-0-1, r0-0-1; IV d1-1-0, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: III p0-1-1, r0-1-1; v1-0-2; IV d0-1-0, p1-0-1, r1-0-1, v1-2-2; metatarsus: I v1-0-0; II v1-0-0; III p0-2-2, r0-1-2, v1-0-2; IV p0-2-2, r0-2-2, v1-1-2. Median apophysis small, barely visible, covered by the enlarged base of embolus (Fig. 107), retrolateral tibial apophysis narrow, long, almost reach the middle of cymbium, sharply pointed, the dorsal tooth on tibia large;



Figs. 106–108: *Avstroneulanda joyae* gen. n. et sp. n., copulatory organs. **106** left male palp, prolateral view; **107** same, ventral view; **108** same, retrolateral view. Scale bar = 0.25 mm.

patellar apophysis wide, hooked and narrow on the tip (Figs. 107–108).

Female unknown.

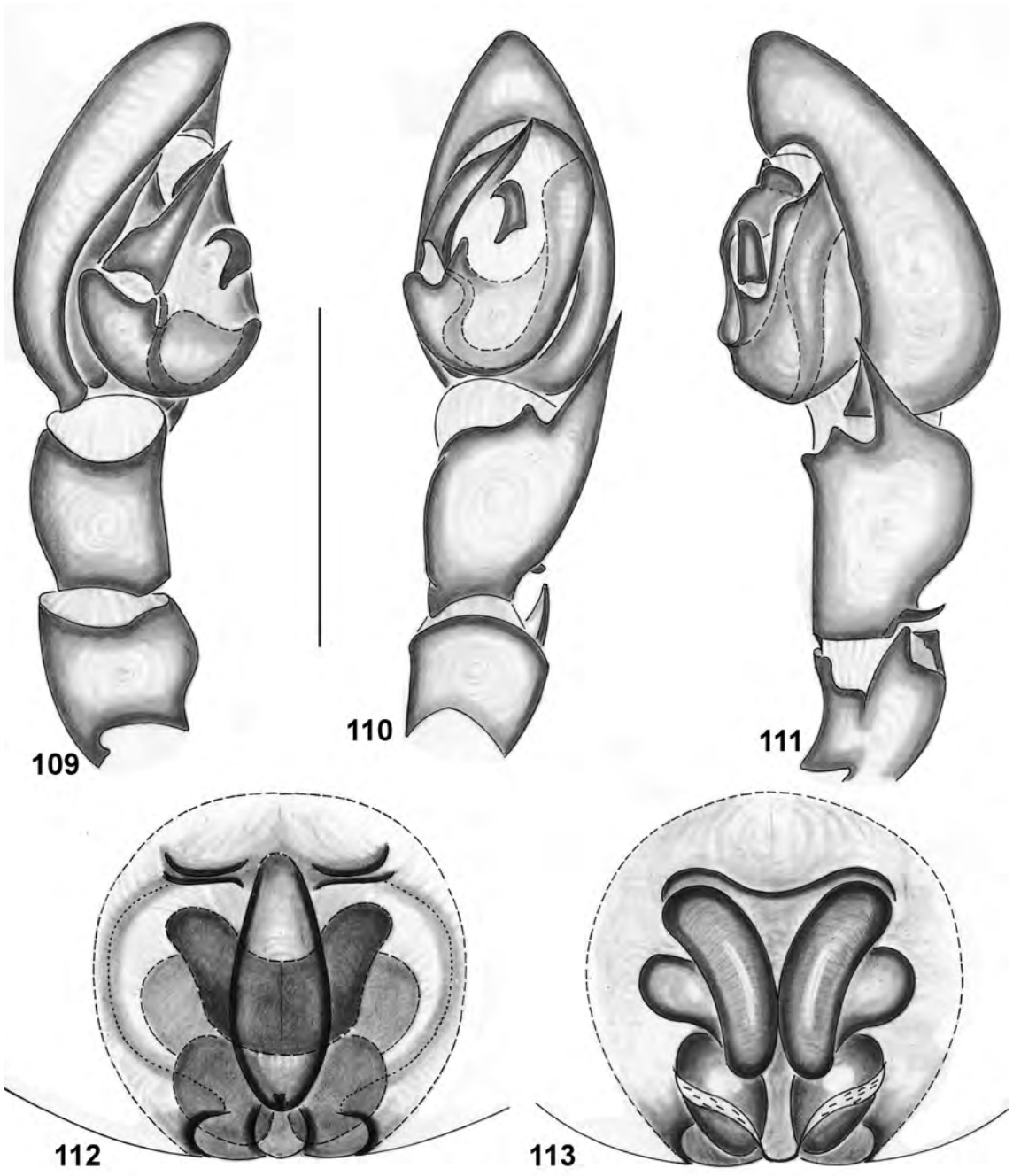
The *harveyi* species group

The *harveyi* species group includes eight species in which the male retrolateral tibial apophysis is short, narrow and sharply pointed or blunt, the palp tibia with an additional dorsal tooth, spur, or both, the patellar without a distinctive long apophysis. The female epigyne is mostly elongated, with different variations, the epigynal atrium shallow with a deep middle place of the atrium, the posterolateral pocket small or undeveloped.

***Avstroneulanda harveyi* gen. n. et sp. n.** (Figs. 109–113, 166–168, 195–196)

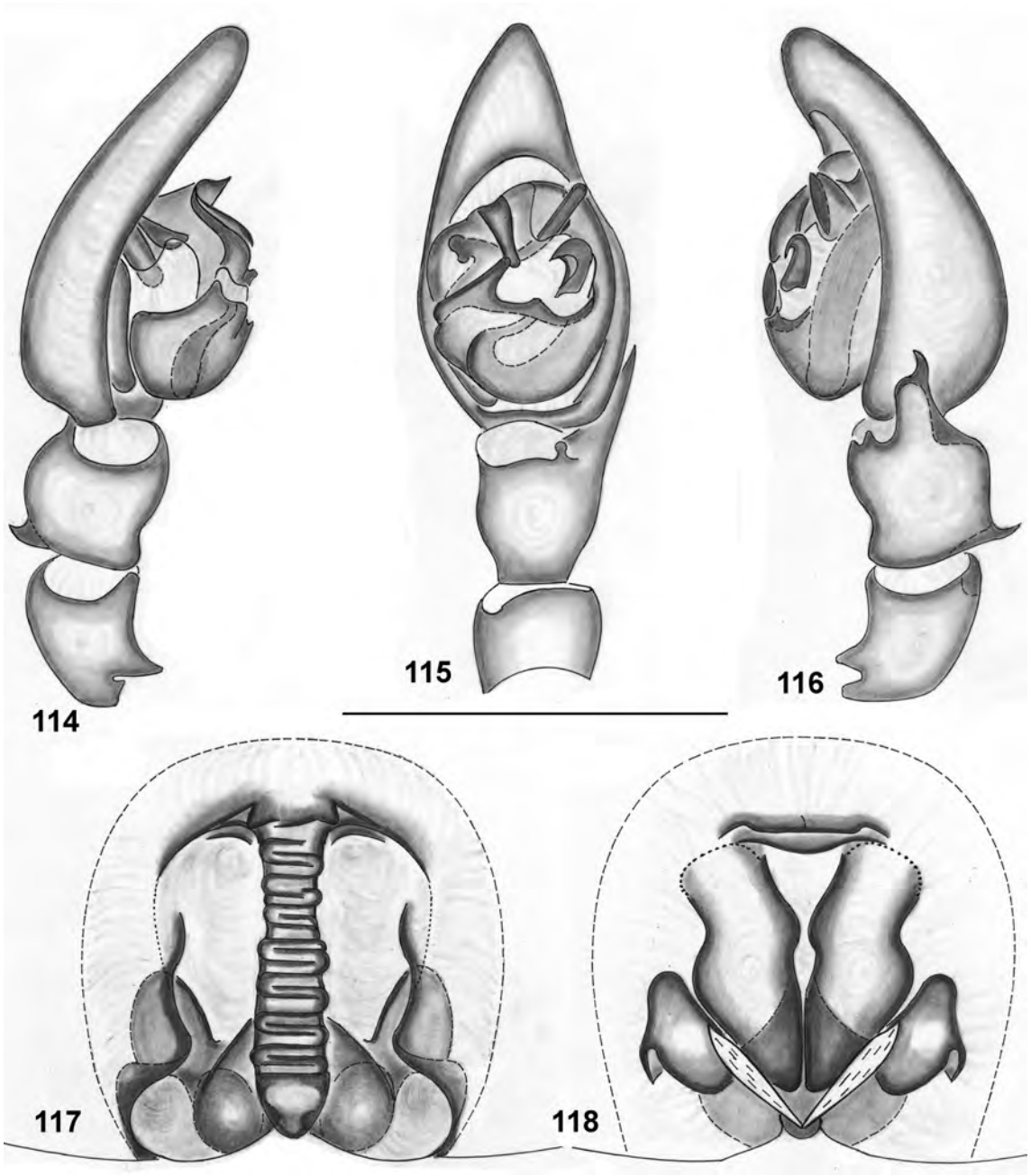
Types: Holotype ♂ (WAM T49606), AUSTRALIA: Western Australia, Hartfield Park, Forrestfield, site HF 1, 32°00′00″S 115°59′43″E, wet pitfall traps, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom. Paratype: 1♀ (WAM T49607), together with the holotype.

Other material: AUSTRALIA: Western Australia: 1♂ (WAM), Bold Park, site BP 5, 31°57′14″S 115°46′16″E, wet pitfall, 18 March–19 May 1994, M. Harvey & J. Waldock; 3♂, 7♀ (WAM), Brickwood Reserve, Cardup, site BR 3, 32°14′00″S 116°00′02″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 2♂ (WAM), Brickwood Reserve, Cardup, site BR 2, 32°14′02″S 116°00′07″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 1♂ (WAM), Cardup Reserve, Cardup, site CR 2, 32°14′40″S 115°59′15″E, wet pitfall trap, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 9♂, 9♀ (WAM), Brickwood Reserve, Cardup, site BR 2, 32°14′02″S 116°00′07″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 1♂ (WAM), Bushmead, Midland Road, site BM 1, 31°55′11″S 116°01′01″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 1♂ (WAM), Bushmead, Ridge Hill Road, site BM 2, 31°55′56″S 116°02′22″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 1♂ (WAM), Cardup Reserve, site CR 2, 32°14′40″S 115°59′15″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 1♂ (WAM), Cardup Reserve, site CR 3, 32°14′53″S 115°59′08″E, 16 April–17 June 1996, wet pitfall, J. Waldock, P. West & A. Longbottom; 1♀ (WAM), Goongarrie Station, site GG 2, 29°58′32.0″S 121°03′20.4″E, wet pitfall, 1–5 May 1996, P. West *et al*.; 2♂, 2♀ (1♂ and 1♀ from this sample were taken as types), (WAM), Hartfield Park, Forrestfield, 32°00′00″S 115°59′43″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 2♂, 2♀ (WAM), Hartfield Park, Forrestfield, site HF 2, 31°59′52″S, 115°59′40″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 2♀ (WAM), Hepburn Heights, site HF 4, 31°48′57″S 115°46′41″E, wet pitfall, 13–25 July 1995, J. Waldock, J. Dell; 1♂ (WAM), Jandakot, 32°06′S 115°52′E, 19 March 1977, R. McMillan; 1♂, 1♀ (WAM), [Gull Rock National Park], Ledge Point, 35°01′S 118°00′E, 17–20 March 1985, W. F. Humphreys; 1♀



Figs. 109–113: *Avstroneulanda harveyi* gen. n. et sp. n., copulatory organs. **109** left male palp, prolateral view; **110** same, ventral view; **111** same, retrolateral view; **112** epigyne, ventral view; **113** vulva, dorsal view. Scale bar = 0.5 mm.

(WAM), Mt Cooke, 32°25′S 116°18′E, 24 April–15 May 1991, M. Harvey & J. Waldock; 1♀ (WAM), Stirling Range National Park, Mt Magog, 34°23′59″S 117°56′35″E, wet pitfall, 25 April–03 September 1996, J. Waldock, B. Main; 1♀ (WAM), Mt Lindesay, 34°50′30″S 117°18′21″E, 410 m, wet pitfall, 14 June 1996, S. Barrett; 2♂ (WAM), Norman Road, Cardup, site NO 3, 32°15′49″S 116°00′13″E, wet pitfall trap, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 2♂, 3♀ (WAM), Norman Road, Cardup, site NO 3, 32°15′49″S 116°00′13″E, wet pitfall trap, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 3♂ (WAM), Norman Road, Cardup, site NO 1, 32°16′08″S 116°00′44″E, wet pitfall, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 1♂ (WAM), Perth Airport, site PA 5, 31°58′03″S 115°58′11″E, wet pitfall, 18 March–19 May 1994, M. Harvey & J. Waldock; 4♂ (WAM), Perth Airport, site PA 6, 31°58′05″S 115°58′05″E, wet pitfall, 18 March–19 May 1994, M. Harvey & J. Waldock; 1♀ (WAM), Perth Airport, site PA 6, 31°58′05″S 115°58′05″E, wet pitfall, 10 May–24 June 1993, J. Waldock; 2♂ (WAM), Perth Airport, site PA 7, 31°58′34″S 115°58′25″E, wet pitfall, 18 March–24 1994, M. Harvey & J. Waldock; 1♀ (WAM), Reabold Hill, 31°57′S 115°46′E, pitfall, 30 June 1976, J. Majer; 1♂ (WAM), Warwick Open Space, site WR 2, 31°50′33″S 115°49′00″E, wet pitfall, 29 January–28 March 1996, J. Waldock, P. West & A. Wheeler; 3♀ (WAM), Martin, Rushton Road, site RR 2, 32°03′54″S 116°01′03″E, wet pitfall, 16 April–17 June 1996, J. Wal-



Figs. 114–118: *Avstroneulanda raveni* gen. n. et sp. n., copulatory organs. **114** left male palp, prolateral view; **115** same, ventral view; **116** same, retrolateral view; **117** epigyne, ventral view; **118** vulva, dorsal view. Scale bar = 0.5 mm.

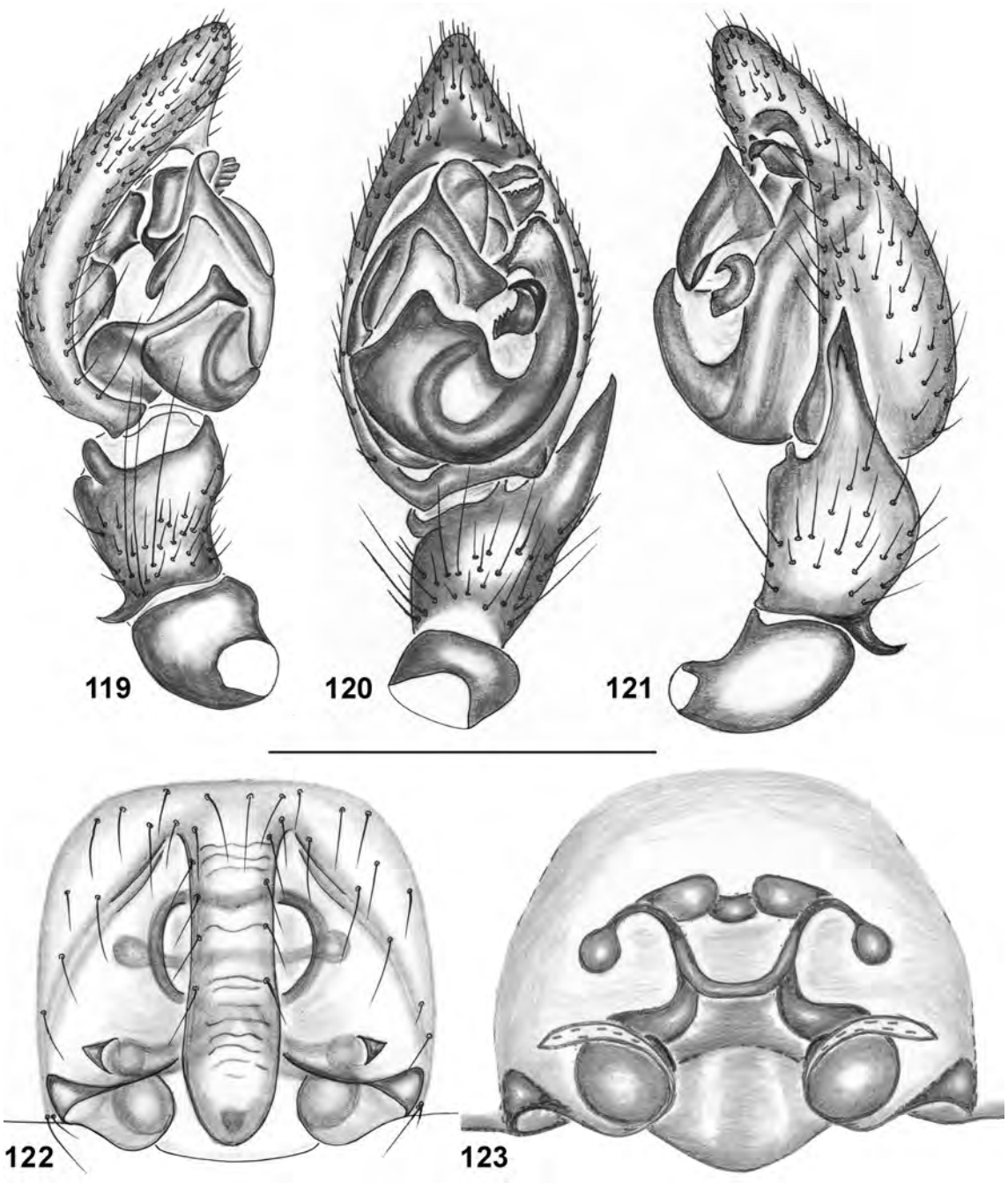
dock, P. West & A. Longbottom; 1♂, 1 juv. (WAM), Talbot Road Reserve, 31°52′13.0″S 116°02′49.9″E, wet pitfalls, 16 April–17 June 1996, J. Waldock, P. West & A. Longbottom; 1♂ (WAM), Yanchep National Park, 31°00′S 115°00′E, 08 April 1977, G. Barron & G. Harold.

Etymology: The specific name is a patronym in the honour of Dr Mark Harvey of the Western Australian Museum, one of the collectors of this species and many other important gnaphosid specimens.

Diagnosis: Members of this species can be easily separated from those of the other known *Avstroneulanda* species by the presence of short, sharply pointed retrolateral tibial apophysis and the lack patellar apophysis of male (Fig. 111), females by long, wide, club-shaped scapus, narrow, deep middle place of atrium with posterolateral pockets (Fig. 112).

Distribution: South-western Australia.

Description of holotype male: Total length 5.20. Carapace 2.15 long, 1.5 wide. Femur II 1.36 long. Carapace yellow; abdomen grey yellow with reddish anterior triangular spot; legs yellow brown. Eye sizes and interdistances: AME 0.10, ALE 0.11, PME 0.16, PLE 0.11, AME-AME 0.05, AME-ALE 0.01, PME-PME 0.01, PME-PLE 0.05, ALE-PLE 0.03; MOQ length 0.35, front width 0.24, back width 0.29. Leg spination: femora: I d1-1-0, p0-0-1; II p0-0-1; III d1-1-1, p0-1-1, r0-1-1; IV d1-1-1, p0-1-1, r0-1-1; patella: III d0-0-1, p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v2-2-0; II v2-2-1; III p0-1-1, v2-2-2, r0-1-1; IV d0-1-0,



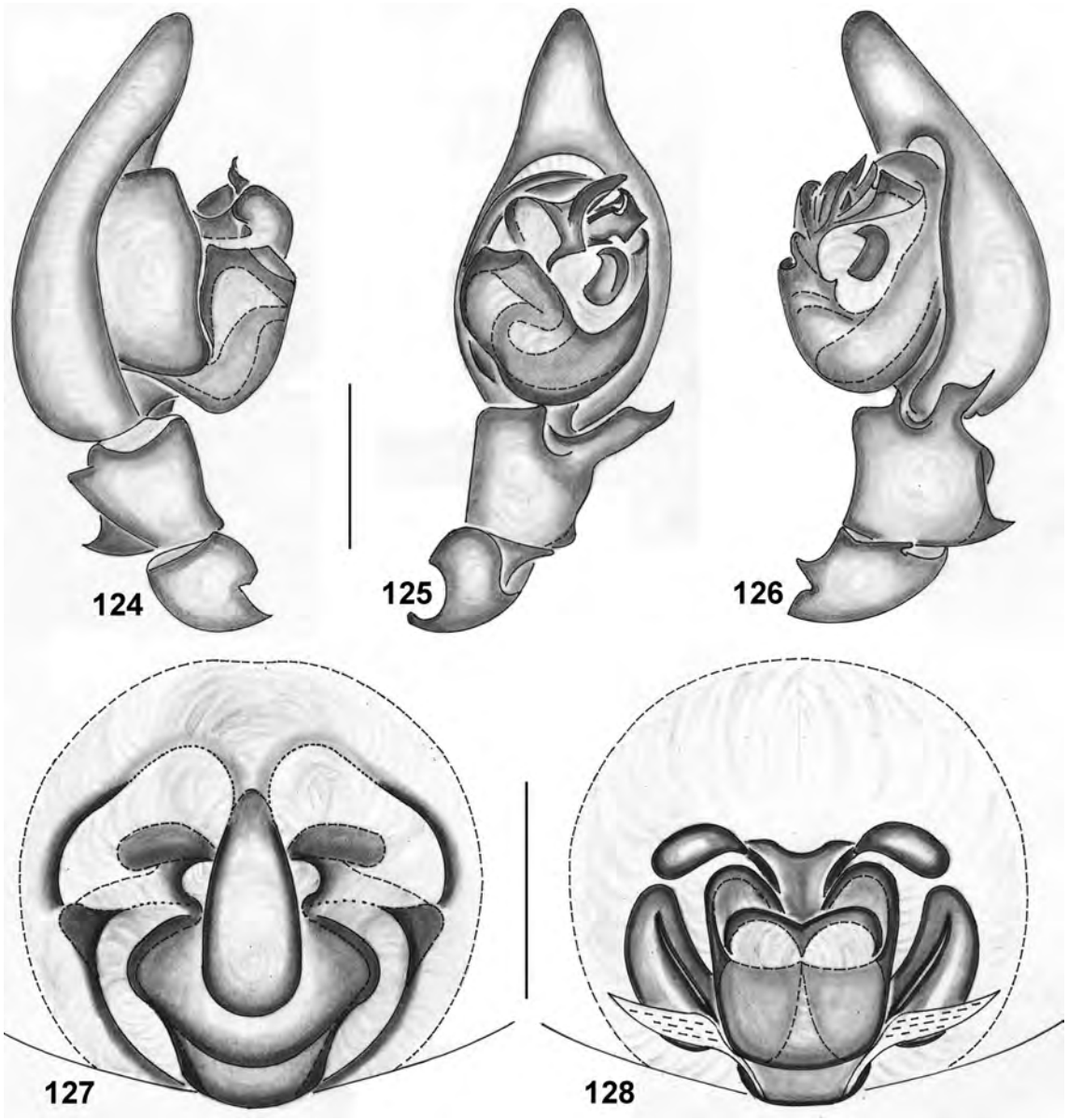
Figs. 119–123: *Avstroneulanda mariya* gen. n. et sp. n., copulatory organs. **119** left male palp, prolateral view; **120** same, ventral view; **121** same, retrolateral view; **122** epigyne, ventral view; **123** vulva, dorsal view. Scale bar = 0.5 mm.

p0-1-1, v2-2-2, r0-1-1; metatarsus: I v2-0-0; II v2-0-0; III p1-2-2, v0-2-2, r1-2-2; IV p1-2-2, v2-2-2, r1-2-2. Retrolateral tibial apophysis short, narrow, sharply pointed, dorsal side of tibia with short spur posteriorly (Fig. 111); embolus slender, medial apophysis small, short, patella without any modification (Figs. 109–110).

Description of paratype female: Total length 4.90. Carapace 1.83 long, 1.33 wide. Femur II 1.20 long. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.11, PLE 0.10, AME-AME 0.04, AME-ALE 0.03, PME-PME 0.00, PME-PLE 0.04, ALE-PLE 0.06; MOQ length 0.27, front width 0.19, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-1; III p0-1-1, r0-1-1, v1-1-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: Iv2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-0-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with long, wide, club-shaped scapus, narrow, deep middle place of atrium with posterolateral pockets (Fig. 112); spermathecae enlarged, oval, and laterally located (Fig. 113).

***Avstroneulanda raveni* gen. n. et sp. n.** (Figs. 114–118, 169–172, 197–198)

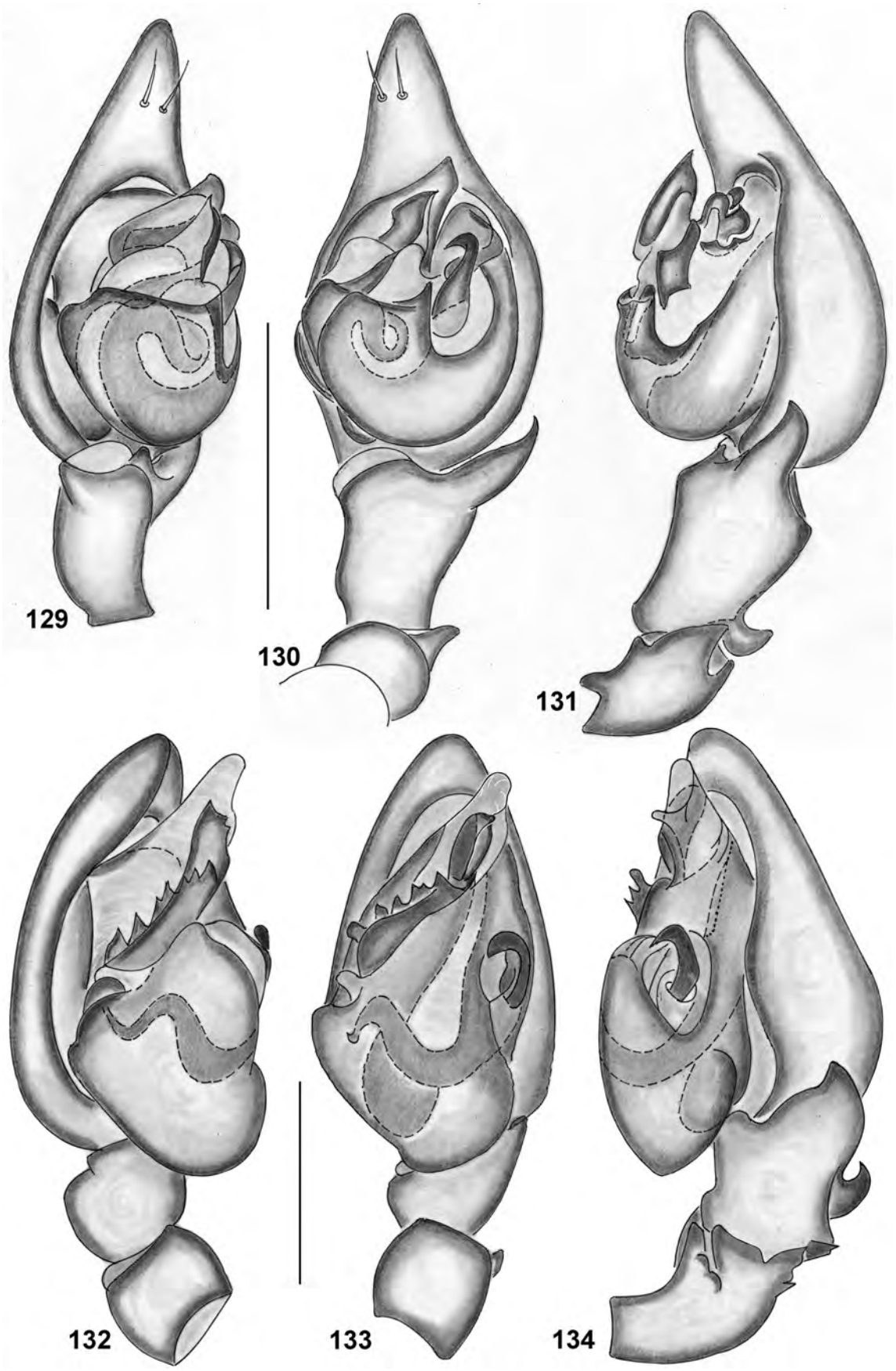
Types: Holotype ♂ (QMB, S 30430), AUSTRALIA: Queensland, Karawatha Forest, 27°37′S 153°05′E, pitfall in Melaleuca forest, 17 December 1994–23 April 1995, D.



Figs. 124–128: *Avstroneulanda hostosi* gen. n. et sp. n., copulatory organs. **124** left male palp, prolateral view; **125** same, ventral view; **126** same, retrolateral view; **127** epigyne, ventral view; **128** vulva, dorsal view. Scale bars = 0.5 mm (124–126), 0.25 mm (127–128).

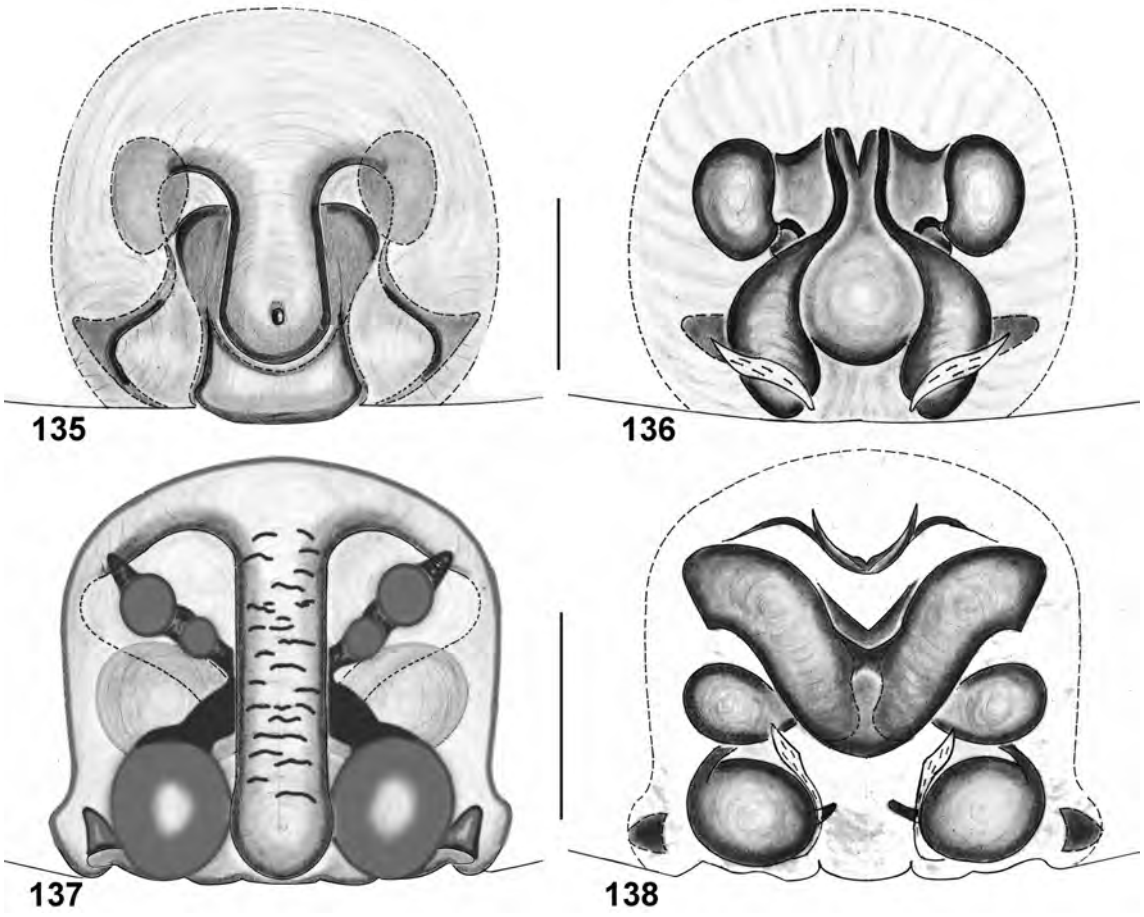
Stewart. Paratype: 1♀ (QMB, S 30430), together with the holotype.

Other material: AUSTRALIA: New South Wales: 1♀ (AMS, KS 63827), Brou Lake Road, Narooma, 36°08′52″S 150°06′03″E, 09 March 1999, L. Wilkie, R. Harris & H. Smith; 1♀ (AMS, KS 57603), Munmorah State Rec[reation Reserve], 33°00′34″S 151°00′59″E, 15 April 1998, L. Wilkie; 1♂ (AMS, KS 57590), Myall Lakes National Park, 32°00′56″S 152°00′27″E, 15 December 1996, L. Wilkie; 1♂, 1♀ (AMS, KS 49068), Jamieson Park, Narrabeen, 23°00′S 151°00′E, 20 m, *Angophora costata* woodland, ridge top, pitfall, 06–20 November 1995, M. Gray & H. Smith; 1♀ (AMS, KS 63822), S of junction of Quart Pot and Ross Ridge Roads, Mogo, 35°05′28″S 150°00′44″E, 8 March 1999, J. Tamawski & S. Lassau. Queensland: 1♂ (QMB, S 47790), Boat Mtn summit E. P., 26°09′S 151°59′E, open forest, pitfall, 14 December 1994–26 January 1995, G. Monteith; 1♂ (QMB, S 49874), Camerons Scrub, 27°31′S 152°44′E, 120 m, vine scrub, pitfall, 11 November 1998–13 January 1999, Monteith, Cook & Thompson; 1♂, 1♀ (QMB, S 19629), Camira, 27°37′S 152°55′E, pitfall, 30 July–October 1990, R. J. Raven; 1♂ (QMB, S28006), Cooloola, 26°02′S 156°00′E, high dune, pitfall, October 1978, K. Plowman; 1♂ (QMB, S 22148), Frenchville, 23°20′S 150°00′E, open forest, pitfall, 21 March 1991, D. Wallace, R. Raven & K. Williams; 1♀ (QMB, S30414), Ewen Maddock Dam, 26°48'S 152°59'E, open forest, pitfall, 03 May–22 August 1993, B. Site & M. Glover; 1♂, 2♀ (QMB, S 30427, S 30433, S 30435), Karawatha Forest, 27°37′S 153°05′E, 17 December 1994–24 April 1995, *Melaleuca* forest, pitfall trap, D. Stewart; 1♂ (QMB, S 30604), Mahogany Forest, Mt Moffat, 25°00′S, 148°00′E, intercept, 26 September–21 November 1995, G. Monteith; 1♂ (QMB, S 36005), Nangur State Forest, 26°00′S 151°00′E, 320 m, rainforest intercept trap, 24 October–24 November 1995, G. Monteith; 1♂, 1♀



Figs. 129–134: *Avstroneulanda kokoda* gen. n. et sp. n. (129–131) and *A. serratta* gen. n. et sp. n. (132–134), copulatory organs. **129, 132** left male palp, prolateral view; **130, 133** same, ventral view; **131, 134** same, retrolateral view. Scale bar = 0.5 mm.

(QMB, S 26601), Rocky Point, 10 km S of Round Hill Head, 26°00′S 151°56′E, 60 m, rainforest pitfall, 28 August–15 December 1976, G. Monteith & R. Monteith; 1♀ (QMB, S 25587), Rosslyn Head National Park, 23°10′S



Figs. 135–138: *Avstroneulanda yarraman* gen. n. et sp. n. (135–136) and *A. lawlessi* gen. n. et sp. n. (137–138), copulatory organs. **135, 137** epigyne, ventral view; **136, 138** vulva, dorsal view. Scale bars = 0.5 mm (137–138), 0.25 mm (135–136).

150°47′E, vine thicket, pitfall, 18 July–23 October 1990, D. Wallace & R. Raven; 1♂ (QMB, S 36674), Taroom District, 25°27′S 150°02′E, boggomoss, pitfall, 11 November 1996–January 1997, P. Lawless; 1♂, 1♀ (QMB, S 26978), no data. Victoria: 1♀ (NMV, DU 958155), Avon River near Valencia Creek, 37°48′29″S 146°57′11″E, gravel bank, adjacent woodland, pitfall, 10–23 April, 07–21 May 1997, V. Framenau.

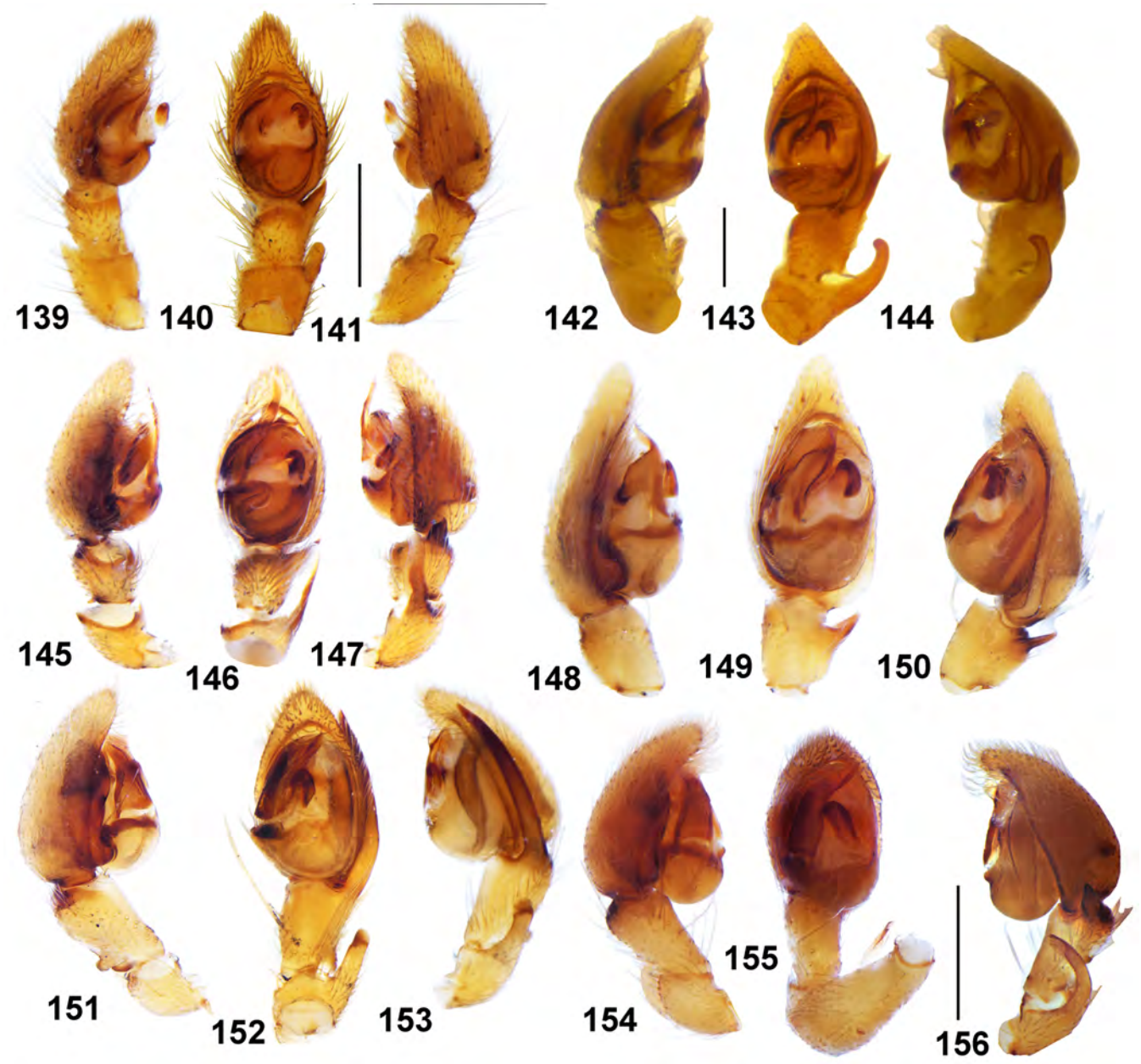
Etymology: The specific name is a patronym in the honour of Dr Robert Raven of the Queensland Museum, one of the collectors of this species and many other mesmerizing Australian gnaphosids.

Diagnoses: The males resemble those of *A. harveyi* gen. n. et sp. n., but can be distinguished by the complicated embolus and the wide retrolateral tibial apophysis with a short dorsal projection on its tip (Fig. 116); the females differ in the long, narrow, pleated scapus and the wide, deep atrium with posterolateral margins (Fig. 117).

Distribution: Eastern Australia.

Description of holotype male: Total length 5.30. Carapace 1.93 long, 1.47 wide. Femur II 1.40 long. Carapace yellow; abdomen grey yellow with radish anterior triangular spot; legs yellow brown. Eye sizes and interdistances: AME 0.12, ALE 0.13, PME 0.13, PLE 0.11, AME-AME 0.04, AME-ALE 0.02, PME-PME 0.00, PME-PLE 0.06, ALE-PLE 0.03; MOQ length 0.33, front width 0.23, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3, IV d1-1-3; patella: p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-0; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p1-0-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-2-0, p0-0-1, r0-0-1, v1-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Retrolateral tibial apophysis short, wide, longer dorsally than ventrally, with slightly hooked dorsal part, the dorsal side of the tibia with short spur posteriorly (Fig. 116); median apophysis small, hooked, embolus complicated with additional projections (Figs. 114–115).

Desription of paratype female: Total length 4.90. Carapace 1.83 long, 1.33 wide. Femur II 1.20 long. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.11, PLE 0.10, AME-AME 0.04, AME-ALE 0.03, PME-PME 0.00, PME-PLE 0.04, ALE-PLE 0.06; MOQ length 0.27, front width 0.19, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-1; III p0-1-1, r0-1-1, v1-1-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-0-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with long, narrow, pleated scapus, wide, deep atrium with distinctive posterolateral margins and pockets (Fig. 117); spermathecae small, oval, and posteriorly located (Fig. 118).



Figs. 139–156: *Zelanda erebus* (L. Koch, 1873) (139–141), *Z. elongata* (Forster, 1979) (142–144), *Z. obtusa* (Forster, 1979) (145–147), *Z. titiranga* Ovtsharenko, Fedoryak & Zakharov, 2006 (148–150), *Avstroneulanda grayi* gen. n. et sp. n. (151–153), and *A. robertsi* gen. n. et sp. n. (154–156), left male palps. **139, 142, 145, 148, 151, 154** prolateral views; **140, 143, 146, 149, 152, 155** ventral views; **141, 144, 147, 150**, **153, 156** retrolateral views. Scale bars = 0.5 mm (139–144), 0.25 mm (154–156).

***Avstroneulanda mariya* sp. n.** (Figs. 119–123)

Types: Holotype ♂ (QMB, S 36146), AUSTRALIA: Queensland, Lake Broadwater via Dalby, 27°21′S 151°06′E, pitfall, 19 February–26 March 1985, Qld. Museum and M. Bennie. Paratype: 1♀ (QMB, S 36146), together with the holotype.

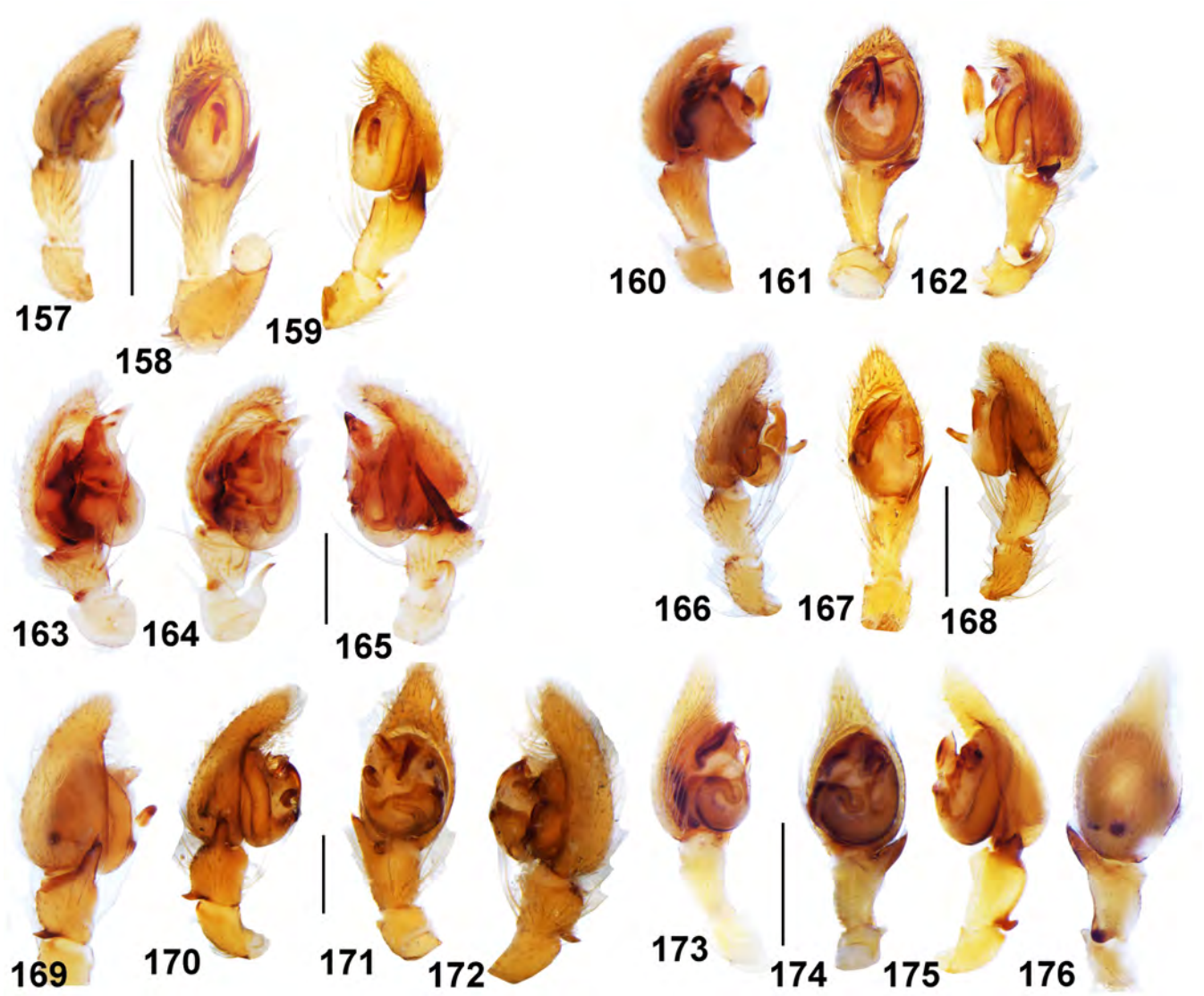
Other material: AUSTRALIA: Queensland: 1♂, 1♀ (QMB, S 30400), Frenchville, 23°20′S 150°34′E, open forest, pitfall, 21 March–03 September 1991, D. Wallace, R. Raven & K. Willian; 2♂, 1♀ (QMB S 28656, 1♂, S 28583, 1♂, 1♀), Lake Broadwater via Dalby, 27°21′S 151°06′E, pitfall, 03 January–25 February 1986, Qld. Museum and M. Bennie; 1♀ (QMB, S 26416), Mulgowie, 27°44′S 152°22′E, 07 April 1981, M. Grant.

Etymology: The specific name is a matronym honouring Dr Mariya Fedoryak (Chernivtsy, Ukraine), who was enthusiastically involved in the preparation of this revision at earlier stages; a noun in apposition.

Diagnosis: The males resemble those of *A. raveni* gen. n. et sp. n., but can be distinguished by the wide embolus with projections on the tegulum and the wide retrolateral tibial apophysis pointed at its tip (Fig. 121); the females differ in the long, smooth, wide scapus with parallel lateral borders and the median circular depression of the atrium (Fig. 122).

Distribution: South-eastern Queensland.

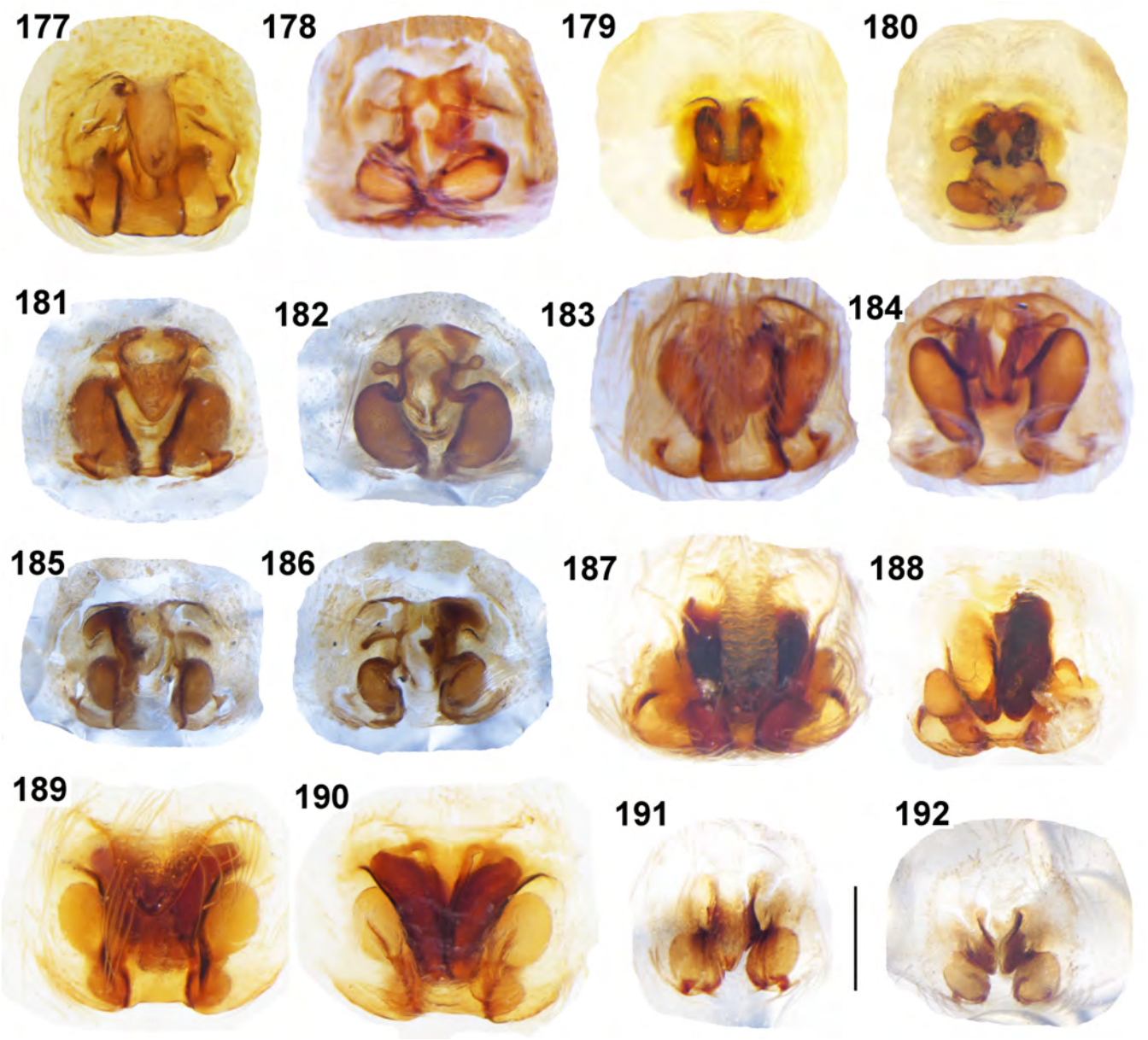
Description of holotype male: Total length 3.65. Carapace 1.53 long, 1.18 wide. Femur II 1.15 long. Carapace shiny yellow brown with distinctive black border; abdomen grey with brown anterior triangular spot and three pairs of



Figs. 157–176: *Avstroneulanda julianneae* gen. n. et sp. n (157–159), *A. johnmurphyi* gen. n. et sp. n. (160–162), *A. joyae* gen. n. et sp. n. (163–165), *A. harveyi* gen. n. et sp. n. (166–168), *A. raveni* gen. n. et sp. n. (169–172), and *A. kokoda* gen. n. et sp. n. (173–176), male palps. **157, 160, 163, 166, 173** left palp, prolateral view; **158, 161, 164, 167, 174** same, ventral view; **159, 162, 165, 168, 175** same, retrolateral view; **176** same, dorsal view; **170** right male palp, prolateral view; **171** same, ventral view; **172** same, retrolateral view; **169** same, dorsal view. Scale bars = 0.5 mm (157–159, 163–168, 173–176), 0.25 mm (169–172).

light muscular spots; legs yellow brown, shiny, with dark spines. Eye sizes and interdistances: AME 0.09, ALE 0.12, PME 0.16, PLE 0.10, AME-AME 0.03, AME-ALE 0.01, PME-PME 0.01, PME-PLE 0.02, ALE-PLE 0.03; MOQ length 0.33, front width 0.22, back width 0.24. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-1, p0-1-1, r0-0-1; IV d1-1-1, p0-0-1, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v2-2-0; II v1-2-0; III p0-1-1, r0-1-1; v1-1-2; IV p0-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III p1-2-2, r0-1-2, v0-2-2; IV p1-2-2, r1-2-2, v2-2-2. Retrolateral tibial apophysis long, wide, robust, pointed on the tip, the dorsal side of the tibia with short, slightly bend spur spaced posteriorly (Fig. 121); median apophysis small, hooked, embolus wide with projections on tegulum (Fig. 120).

Description of paratype female: Total length 5.00. Carapace 1.88 long, 1.35 wide. Femur II 1.35 long. Eye sizes and interdistances: AME 0.11, ALE 0.14, PME 0.16, PLE 0.12, AME-AME 0.05, AME-ALE 0.01, PME-PME 0.01, PME-PLE 0.02, ALE-PLE 0.06; MOQ length 0.36, front width 0.26, back width 0.26. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-1, p0-1-1, r0-1-1; IV d1-1-1, p0-0-1, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-1-0; II v1-1-0; III p0-1-1, r0-1-1, v1-1-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: II v2-0-0; III p1-2-2, r1-1-2, v0-2-2; IV p1-2-2, r0-2-2, v2-2-2. Epigyne with long, smooth, wide scapus with parallel lateral borders, atrium shallow with circle depression in middle deeply extended posteriorly, with distinctive posterolateral margins and widely spaced two pare of small pockets (Fig. 122); spermathecae small, round, widely spaced and posteriorly located (Fig. 122).



Figs. 177–192: *Zelanda erebus* (L. Koch, 1873) (177–178), *Z. elongata* (Forster, 1979) (179–180), *Z. kaituna* (Forster, 1979) (181–182), *Z. obtusa* (Forster, 1979) (183–184), *Z. miranda* (Forster, 1979) (185–186), *Avstroneulanda grayi* gen. n. et n. sp. (187–188), *A. robertsi* gen. n. et n. sp. (189–190), and *A. julianneae* gen. n. et n. sp. (191–192), female copulatory organs. **177, 179, 181, 183, 185, 187, 189, 191** epigyne, ventral view; **178, 180, 182, 184, 186, 188, 190, 192** vulva, dorsal view. Scale bar = 0.5 mm.

***Avstroneulanda hostosi* gen. n. et sp. n.** (Figs. 11, 14, 18, 124–128, 199–200)

Type specimens: Holotype ♂ (AMS, KS 55326), PAPUA NEW GUINEA: 15 km NW of Tabubil, South East slopes of Mt Akrik, 05°10′S 141°09′E, 1600 m, 16 December 1993, R. Lachlan. Paratype: 1♀ (AMS, KS 55326), together with the holotype

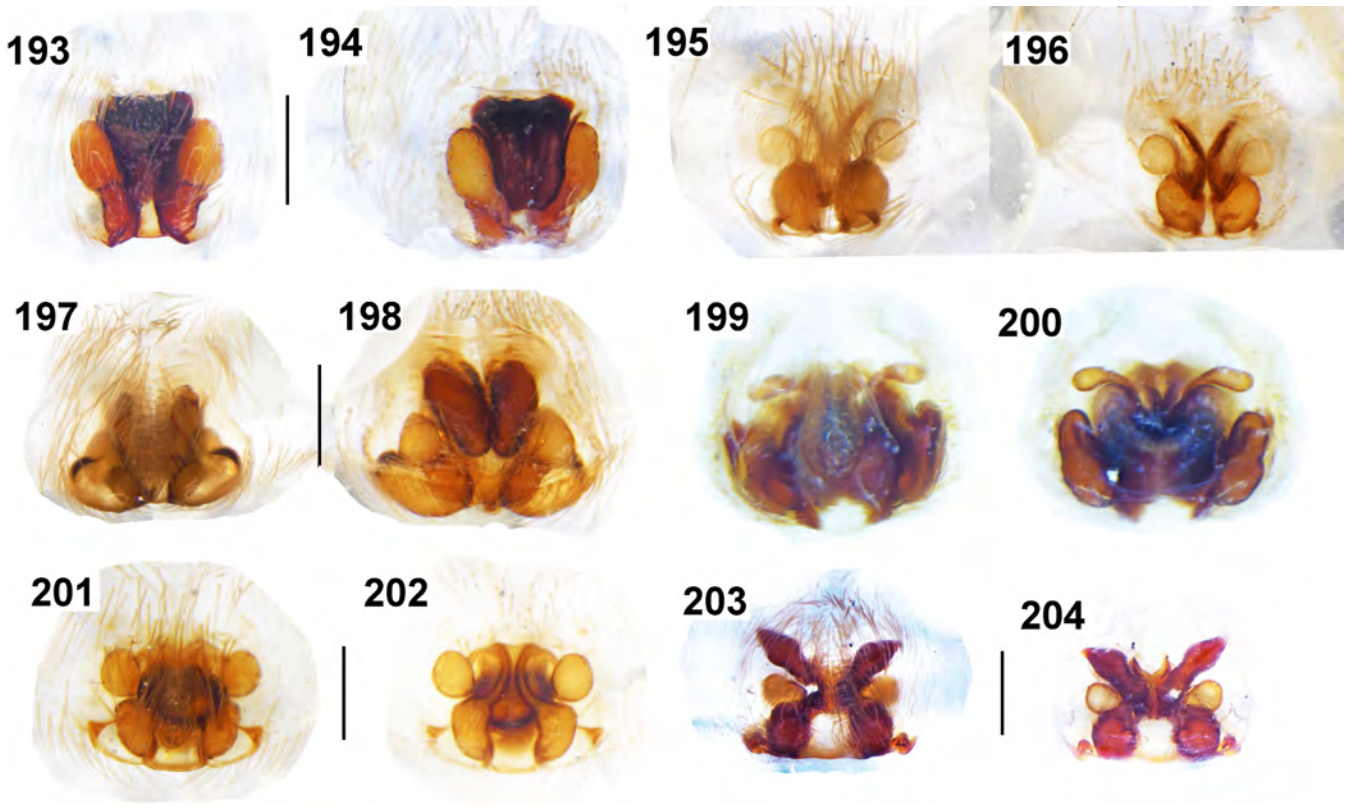
Other material: PAPUA NEW GUINEA: 1♂, 1♀, 1 juv. (AMS, KS 044764), Mt Akrik, SE slopes, 15 km NW of Tabubil, 05°10′S 141°00′E, 1600 m, 16 December 1993, R. Lachlan.

Etymology: The specific name is a patronym in honour of Mr Eugenio María de Hostos who dedicated his life to progress, education, and justice, passionately committed to human rights and personal dignity.

Diagnosis: Males can be recognized by the small, hooked median apophysis, narrowing to the tip embolus, and the narrow, short, sharply pointed retrolateral tibial apophysis (Fig. 126); and females by the short, club-shaped scapus, and the round epigynal atrium, deepest in the mid-piece with mid-lateral pockets (Fig. 127).

Distribution: Papua New Guinea.

Description of holotype male: Total length 5.30. Carapace 1.93 long, 1.47 wide. Femur II 1.40 long. Carapace yellow; abdomen grey yellow with reddish anterior triangular spot; legs yellow brown. Eye sizes and interdistances: AME 0.12, ALE 0.13, PME 0.13, PLE 0.11, AME-AME 0.04, AME-ALE 0.02, PME-PME 0.00, PME-PLE 0.06, ALE-PLE 0.03; MOQ length 0.33, front width 0.23, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3, IV d1-1-3; patella: p0-1-0, r0-1-0; IV



Figs. 193–204: *Avstroneulanda johnmurphyi* gen. n. et sp. n. (193–194), *A. harveyi* gen. n. et sp. n. (195–196), *A. raveni* gen. n. et sp. n. (197–198), *A. hostosi* gen. n. et sp. n. (199–200), *A. yarraman* gen. n. et sp. n. (201–202), and *A. lawlessi* gen. n. et sp. n. (203–204), female copulatory organs. **193, 195, 197, 199, 201, 203** epigyne, ventral view; **194, 196, 198, 200, 202, 204** vulva, dorsal view. Scale bars = 0.5 mm (193–194, 203–204), 0.25 mm (197–198, 201–202).

p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-0; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p1-0-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-2-0, p0-0-1, r0-0-1, v1-2-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Retrolateral tibial apophysis small, narrow, longer dorsally than ventrally, sharply pointed on the dorsal tip, tibia dorsally with distinctive tooth (Fig. 126), median apophysis short, wide, hook-shaped, tegulum with projections, embolus narrowing on the tip (Fig. 125).

Description of paratype female: Total length 4.90. Carapace 1.83 long, 1.33 wide. Femur II 1.20 long. Eye sizes and interdistances: AME 0.09, ALE 0.11, PME 0.11, PLE 0.10, AME-AME 0.04, AME-ALE 0.03, PME-PME 0.00, PME-PLE 0.04, ALE-PLE 0.06; MOQ length 0.27, front width 0.19, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-3-3; IV d1-1-3; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v0-1-1; III p0-1-1, r0-1-1, v1-1-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III d0-1-2, p1-1-1, r1-1-1, v2-0-2; IV d0-2-2, p1-1-1, r1-1-1, v2-2-2. Epigyne with short, club shaped scapus, epigynal atrium round, deepest in the midpiece with distinctive mid-lateral pockets (Figs. 127, 199), spermathecae large, been shaped, laterally spaced, with two small receptacles anteriorly (Figs. 128, 200).

***Avstroneulanda kokoda* gen. n. et sp. n.** (Figs. 129–131, 173–176)

Type: Holotype ♂ (MCZ), PAPUA NEW GUINEA: Kokoda Trail at 2000 feet, T 43-44, 17–18 August 1974, S. Peck.

Other material: PAPUA NEW GUINEA: 1♂ (MCZ, T 43–45), Papua, Kokoda Trail, 34 mi. East of Port Moresby, 9°28′44″S 147°08′58″E, 2200 feet, 16–17 August 1974, S. Peck.

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: The males can be recognized by the long, narrow, hooked median apophysis, the wide, enlarged embolus, and the wide, bluntly rounded retrolateral tibial apophysis (Fig. 131). Females are unknown.

Distribution: Papua New Guinea.

Description of holotype male: Total length 3.68. Carapace 1.63 long, 1.23 wide. Femur II 1.20 long. Carapace yellow brown; abdomen yellow covered with dark brown hair; legs yellow brown with dark brown spines. Eye sizes and interdistances: AME 0.10, ALE 0.11, PME 0.10, PLE 0.11, AME-AME 0.02, AME-ALE 0.01, PME-PME 0.05, PME-PLE 0.02, ALE-PLE 0.01; MOQ length 0.26, front width 0.22, back width 0.23. Leg spination: femora: I d1-0-1, p0-0-1; II d1-0-1, p0-0-1; III d1-1-1, p0-0-1, r0-0-1; IV d1-1-0, p0-0-1, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-0-1; II v1-2-1; III d0-1-0, p0-1-1, r0-1-1, v1-0-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatar-

sus: I v2-0-0; II v2-0-0; III p0-2-2, r1-1-2, v2-0-0; IV p1-2-2, r1-2-2, v2-2-0. Retrolateral tibial apophysis short, wide, bluntly rounded with pointed projection on the ventral part, tibia dorsally with the hooked spur (Fig. 131), median apophysis long, narrow, hooked, embolus wide with projections (Figs. 129–130).

Female unknown.

***Avstroneulanda serratta* gen. n. et sp. n.** (Figs. 132–134)

Type: Holotype ♂ (WAM, T49608), AUSTRALIA: Western Australia, Wicherina Dam site, 28°43′49″S 115°00′17″E, 05 November 1998, V. I. Ovtsharenko.

Etymology: The specific name is taken from the Latin word *serratus*/*serrata*, referring to the serrated anterior border of the male embolus.

Diagnosis: The males can be easier recognized by the serrated anterior border of the embolus and the short, wide retrolateral tibial apophysis (Fig. 133). Females are unknown.

Distribution: A single locality in Western Australia.

Description of holotype male: Total length 4.90. Carapace 2.75 long, 1.98 wide. Femur II 1.53 long. Carapace dark brown, lighter in the middle; chelicerae dark brown, cowered with lots of little shiny pimples; abdomen dark brown, almost black with brown shiny anterior triangular spot; legs brown. Eye sizes and interdistances: AME 0.14, ALE 0.15, PME 0.15, PLE 0.13, AME-AME 0.05, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.05, ALE-PLE 0.03; MOQ length 0.38, front width 0.32, back width 0.35. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-1, p0-1-1, r0-1-1, IV d1-1-1, p0-0-1, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-2-1; II v0-1-0; III p0-1-1, r0-1-1, v2-2-2; IV d0-1-0, p0-1-1, r0-1-1, v2-2-2; metatarsus: I v2-0-0; II v2-0-0; III p1-2-2, r1-2-2, v2-2-2; IV p1-2-2, r1-2-2, v2-2-2. Retrolateral tibial apophysis short, very wide, rounded dorsally, tibia dorsally with the wide, hooked spur in middle and with small, straight, pointed spur proximal, patella with small and flat retrolateral apophysis (Fig. 134), median apophysis short, wide, and hooked, embolus with distinctive serrated anterior border, conductor large and distinctive (Figs. 132–133).

***Avstroneulanda yarraman* gen. n. et sp. n.** (Figs. 135–136, 201–202)

Type: Holotype ♀ (QMB, S 30310), AUSTRALIA: Queensland, Yarraman, 26°51′S 152°00′E, 440 m, pitfall, 01 December 1991–07 January 1992, D. J. Cook.

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: The females can be easily recognized by the elongated, posteriorly widened scapus and the distinctive posterolateral pockets (Fig. 135). Males are unknown.

Distribution: Eastern Australia.

Description of holotype female: Total length 4.55. Carapace 1.90 long, 1.45 wide. Femur II 1.30 long. Carapace and legs orange brown. Abdomen uniform grey with a short middle black line and two pairs of small anterior reddish brown muscle spots on a mid-dorsal surface. Eye sizes and interdistances: AME 0.13, ALE 0.13, PME 0.15, PLE 0.13, AME-AME 0.04, AME-ALE 0.01, PME-PME 0.01, PME-PLE 0.01, ALE-PLE 0.06; MOQ length 0.34, front width 0.25, back width 0.25. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-0, p0-0-1; III d1-1-1, 0-0-1, r0-1-1; IV d1-1-1, p0-0-1, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v1-0-1; II v0-0-1; III p0-1-1, r0-1-1, v1-1-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: II v2-0-0; III p1-2-2, r1-1-2, v2-0-2; IV p1-2-2, r1-2-2, v2-2-2. Epigyne with the elongated scapus, widened posteriorly, epigynal atrium round, deepest in the midpiece with distinctive posterolateral pockets (Figs. 135, 201), spermathecae bean-shaped, laterally located, with long, anteriorly extended epigynal ducts, receptacles oval, anteriorly located (Figs. 136, 202).

Male unknown.

***Avstroneulanda lawlessi* gen. n. et sp. n.** (Figs. 137–138, 203–204)

Type: Holotype ♀ (QMB, S 25139), AUSTRALIA: Queensland, Davies Creek National Park, 17°00′S 154°34′E, 29 October 1991–23 July 1992, P. Lawless, R. Raven & M. Shaw.

Etymology: The specific name is a patronym in the honour of one of the collectors of this species and many other interesting gnaphosids.

Diagnosis: The females can be recognized by the epigynal atrium that is wide anteriorly and narrowing posteriorly, and the elongated, widened medially scapus (Figs. 137, 203). Males are unknown.

Distribution: A single locality in northern Queensland.

Description of holotype female: Total length 5.60. Carapace 2.10 long, 1.38 wide. Femur II 1.33 long. Eye sizes and interdistances: AME 0.10, ALE 0.14, PME 0.16, PLE 0.13, AME-AME 0.08, AME-ALE 0.01, PME-PME 0.01, PME-PLE 0.03, ALE-PLE 0.06; MOQ length 0.27, front width 0.19, back width 0.21. Leg spination: femora: I d1-1-0, p0-0-1; II d1-1-1, p0-0-1; III d1-1-1, p0-1-1, r0-0-1; IV d1-1-1, p0-0-1, r0-0-1; patella: III p0-1-0, r0-1-0; IV p0-1-0, r0-1-0; tibia: I v0-1-0; II v1-2-0; III p0-1-1, r0-1-1, v1-2-2; IV d0-1-0, p0-1-1, r0-1-1, v1-2-2; metatarsus: I v2-0-0; II v2-0-0; III p1-2-2, r1-2-2, v2-2-2; IV p1-2-2, r1-2-2, v2-2-2. Epigyne with the elongated scapus, widened medially, epigynal atrium wide anteriorly, narrowing posteriorly, deepest midpiece V-shaped, posterolateral pockets small, widely spaced (Fig. 137, 203), spermathecae oval, posterolateral located (Fig. 138, 204).

Male unknown.

Acknowledgements

The present study was supported in part by the American Museum of Natural History (New York). We wish to thank

the National Science Foundation PEET (Partnerships for Enhancing Expertise in Taxonomy) program for providing funds through the grant DEB-9521631 for a revision of Australasian ground spiders, and the Research Foundation of the City University of New York for providing funds through grant PSC-CUNY TRADA-43-582. The authors thank Patricia Malkin for her excellent drawings. Special thanks to the Curator of the American Museum of Natural History Dr Lorenzo Prendini for his support. We are grateful to the curators of each of the collections (listed at the beginning) who made available the material for this study. We wish to particularly thank several colleagues who supplied magnificent collections and provided invaluable assistance during fieldworks: in Perth, Dr Mark Harvey, and Ms Julianne Waldock; in Brisbane, Dr Robert Raven; in Sydney, Dr Michael Gray and Mr Graham Milledge. We are grateful to Henry Towbin and Morgan Hill from the American Museum of Natural History Microscopy and Imaging Facility and the student Karina San from the City College (City University of New York) for their assistance with scanning electron microscopy. The authors are indebted to Dr Sandra Dickinson from the LaGuardia Community College (City University of New York) for improving the English. The efforts of Dr Mark Harvey, Mr Darrell Ubick, and Ms Julianne Waldock in reviewing the manuscript are enormously appreciated.

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